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The Henry L. Stimson Center  
11 Dupont Circle, NW Ninth Floor Washington, DC 20036  
phone 202.223.5956 fax 202.238.9604  
[www.stimson.org](http://www.stimson.org)

## Foreword

I am pleased to present the latest publication from the Stimson Center's East Asia Program, *Japan's Nuclear Option: Security, Politics, and Policy in the 21<sup>st</sup> Century*. This new work grapples with a critical issue for East Asian security, and one that is organically linked to the region: Japan's perceptions of its security vis-à-vis Korea, China and the United States in particular. The study, which reflects the views of many fine young scholars in Japan and the United States, generally concludes that there is no inevitability to a change in Japan's current nuclear policy, and indeed most authors believe Japan will not make a change. But the study also implicitly makes the case that enough variables are in play to merit close attention and careful analysis in the coming years.

Ably led by Stimson Center Senior Associate Benjamin Self, this publication carefully considers how the nuclear issue is addressed in three separate ways: as a part of Japan's evolving national security debate, as an issue in Japanese domestic politics, and as a challenge to the policy process, particularly with respect to decisions on regional security and on energy security. The authors carefully examine the issue from a variety of institutional and cultural perspectives, and provide rich insight and historical context for today's debate in Japan.

This study is part of the Stimson Center's broader work on East Asia, which includes in-depth studies of critical countries, but increasingly tries to look at the region with its many interdependent relationships. Japan's debate on nuclear weapons does not occur in a vacuum; it is part of a response to the enduring problems on the Korean peninsula, the strategic challenge of China's rise, and the uncertainties about American's role in the region and the consequences of American preeminence.

I hope you will find this new publication of value. I would welcome hearing from you on this or other issues of common concern.

Ellen Laipson  
President and CEO  
The Henry L. Stimson Center

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### Advisors:

**James E. Auer**, Vanderbilt University

**Charles D. Ferguson**, Monterey Institute for International Studies

**Alan D. Romberg**, The Henry L. Stimson Center

**Yoshihide Soeya**, Keio University

### Authors

**Nobumasa Akiyama**, Hiroshima Peace Institute

**Katsuhisa Furukawa**, Monterey Institute for International Studies

**Ken Jimbo**, Japan Forum for International Relations

**Andrew L. Oros**, Washington College

**Benjamin L. Self**, The Henry L. Stimson Center

**Sheila A. Smith**, East-West Center

**Jeffrey W. Thompson**, The Henry L. Stimson Center

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## **List of Abbreviations**

- AEC – Atomic Energy Commission (Japan)  
ANRE – Agency of Natural Resources and Energy  
BMD – ballistic missile defense  
BNFL – British Nuclear Fuels Limited  
BPND – Basic Policy for National Defense  
BTWC – Biological and Toxin Weapons Convention  
BWC – Biological Weapons Convention  
CBW – chemical and biological weapons  
CIA – Central Intelligence Agency  
CSCAP – Council for Security Cooperation in the Asia Pacific  
CSIS – Center for Strategic and International Studies  
CTBT – Comprehensive Test Ban Treaty  
CWC – Chemical Weapons Convention  
DOE – Department of Energy (United States)  
DPJ – Democratic Party of Japan (Japan)  
DPRK – Democratic People's Republic of Korea  
EPWs – earth penetrating weapons  
FBRs – fast breeder reactors  
FEPC – Federation of Electric Power Companies of Japan  
FMCT – Fissile Material Cut Off Treaty  
GDP – gross domestic product  
GHQ – General Headquarters  
GSDF – Ground Self Defense Force  
HEU – Highly Enriched Uranium  
HNS – host nation support  
IAEA – International Atomic Energy Agency  
ICJ – International Court of Justice  
IISS – International Institute for Strategic Studies  
IMS – International Monitoring System  
INF – intermediate-range nuclear forces  
IRBMs – intermediate range ballistic missiles  
ISAS – Institute for Space and Aeronautical Sciences  
JAERI – Japan Atomic Energy Research Institute  
JDA – Japan Defense Agency  
JMSDF – Japan Maritime Self-Defense Forces

- JNC – Japan Nuclear Cycle Development Institute  
JNFL – Japan Nuclear Fuel Limited  
JSDF – Japan Self-Defense Forces  
JSP – Japan Socialist Party  
LDP – Liberal Democratic Party (Japan)  
LWRs – light water reactors  
MAD – mutually assured destruction  
METI – Ministry of Economy, Trade, and Industry (Japan)  
MEXT – Ministry of Education, Culture, Sports, Science, and Technology (Japan)  
MIRVs – multiple independently targeted reentry vehicle  
MIT – Massachusetts Institute of Technology  
MITI – Ministry of Industry and International Trade (Japan)  
MOFA – Ministry of Foreign Affairs (Japan)  
MOX – mixed oxide (of plutonium and uranium)  
MRBMs – medium range ballistic missiles  
MTCR – Missile Technology Control Regime  
NASDA – National Space Development Agency (Japan)  
NATO – North Atlantic Treaty Organization  
NCI – Nuclear Control Institute  
NDPO – National Defense Program Outline  
NFU – no-first-use  
NMD – national missile defense  
NPR – Nuclear Posture Review  
NPT – Treaty on the Non-proliferation of Nuclear Weapons  
NSC – National Security Council  
NTW – Navy Theater Wide  
ODA – Overseas Development Assistance  
PAC-3 – Patriot Advanced Capability-3 (missile defense system)  
PACATOM – Pacific Atomic Energy Community  
PLA – People’s Liberation Army (China)  
PNC – Nuclear Fuel Development Corporation of Japan  
PRC – People’s Republic of China  
PSI – Proliferation Security Initiative  
QDR – Quadrennial Defense Review  
R&D – research and development  
SDF – Self-Defense Forces  
SLBM – submarine-launched ballistic missiles  
SLV – space launch vehicles

X | ABBREVIATIONS

SORT – Strategic Offensive Reductions Treaty  
SRBMs – short-range ballistic missiles  
SSBN – nuclear-powered ballistic missile submarines  
START II – (the second) Strategic Arms Reduction Treaty  
TEPCO – Tokyo Electric Power Company  
TMD – theater missile defense  
TMD-WG – Theater Missile Defense Working Group (between Japan and the United States)  
TRDI – Technology Research and Development Institute  
UN – United Nations  
WHO – World Health Organization  
WMD – weapons of mass destruction

## Introduction

The possibility of Japan's becoming a nuclear weapons state is an intriguing topic, the subject of attention over several decades among the general public as well as security policy communities in the United States, East Asia, and around the world. Interest in the subject surged in 2002 amidst turmoil in the East Asian strategic environment and transformation in the security policy and political arenas in Japan. North Korea's open declaration of nuclear capability, against the regional background of a rapidly growing China in the process of military modernization and the global challenge to the nuclear nonproliferation regime, creates a context where many have begun to ask *when*, not whether, Japan will "go nuclear."

The question is a natural one—nuclear weapons are fascinating and important, and everyone pays attention to countries that have them or might be seeking them. The Japanese case has its own special supplemental factors. First, there is the contrast between Japan's general reputation for (occasionally ruthless) pragmatism and its apparently idealistic commitment to a non-nuclear posture. Given the strains of a more threatening environment, could such an unrealistic stance hold? Second, Japan's reputation in the region, derived from its history and its public position on historical issues, has undermined its credibility on all matters, including with regard to nuclear weapons. At the same time, the aura of oriental inscrutability that has long bedeviled Japan's relations with the West hinders its ability to have its positions taken at face value, as observers wonder what they are *really* up to. Finally, although government pronouncements gain little credence in any country, the increasingly frequent provocative statements by Japanese leaders render the fervent official denials little more than more doubletalk.

None of this is to argue that the suspicions are unfair or a product of (racist) misunderstanding. Rather, it is entirely appropriate to be suspicious, because nuclear weapons have such a profound impact on the global security environment. In this regard, the Japanese fundamentally agree. They do not simply ask to be trusted, they comply with intrusive and expensive inspections under the International Atomic Energy Agency (IAEA). Unfortunately, the reliability of the mechanisms Japan points to as proof of its good behavior—its treaty commitments, transparency to inspections, and safeguards protocols—has been thrown into doubt by the cases of Iraq and North Korea, which proceeded with clandestine nuclear arms programs while subject to IAEA monitoring.

In consideration of these circumstances, The Henry L. Stimson Center deemed it necessary to undertake a fresh and comprehensive look at the issue of a nuclear Japan during this time of tremendous regional change. In Fall 2002, the Stimson Center gathered a group of Japanese and American specialists, commissioning papers on various different aspects of the basic question, under the guidance of esteemed scholars and practitioners. This edited volume is the result of the Stimson project team's dedicated efforts to provide well-rounded, rational, and up-to-date insights into Japan's nuclear option in the early part of the twenty-first century.

The project did not aim to develop a consensus view among project participants about the likelihood of a nuclear Japan in the near future. Rather, it sought to develop a thoughtful collection of studies that examine the issue from different perspectives, **all drawing on deep expertise in Japanese security**. The underlying assumption of the organizers was that Japanese behavior on the nuclear issue is more likely to fit within the framework of Japanese security behavior in general than it is to follow a pattern or formula of nuclear proliferation. That is, Japan is *sui generis*, and its behavior cannot be predicted from a purely functional approach.

It bears emphasis that, although all participants had some opinions about the likelihood of Japan's acquiring nuclear arms before the project began, all were instructed to put aside their assumptions and approach their study as objectively as possible. Indeed, they were encouraged to "think the unthinkable" and draw out the facts that might lead Japan to follow through on its nuclear option. Nevertheless, the prevailing view that emerged among team members is that Japan is unlikely to undertake the development of nuclear weapons in the near future. While each agrees on several core factors in making this determination, there is variation in their assessment of how well Japan explains its non-nuclear posture to the world. Further, many identify areas of weakness in Japan's non-nuclear status and urge Japan to make adjustments to the rationale of its policies in accordance with ongoing changes in its strategic environment. **In short, the volume as a whole provides analysis and explanation of why observers of Japan should be reassured that the reasons for Japan to remain non-nuclear still far outweigh arguments for it to go nuclear, at least for the foreseeable future.**

The topic of this study should be of interest to analysts inside and outside of government as well as policymakers and practitioners in the United States and other countries concerned with the changing dynamics of the East Asian security environment. Understanding how Japan will approach its nuclear strategy in coming years is essential for thinking about how to ensure stability in the East Asia region. Moreover, misunderstanding of Japan's posture—especially given

the fluidity of change in the region now—could lead to great miscalculations of Japan’s intentions and have dire consequences for regional relations. It is the hope of the Stimson Center study to put to rest several misleading interpretations of evolving strategic thinking in Japan that have emerged, or reemerged, in policy communities in recent years.

## REEMERGENCE OF THE NUCLEAR JAPAN QUESTION

Japan’s protection under the US nuclear umbrella has virtually eliminated any need for it to develop nuclear weapons on its own over the past half-century. Official Japanese studies have time and again examined and then rejected the idea that Japan could benefit from possessing them. Japan’s domestic laws all but legalize them. And Japan has developed a significant reliance on nuclear energy with strict safeguards and has vowed to pursue peaceful uses only. But the fact that Japan is a virtual nuclear power—a country with the technological capability to develop them if the political will exists—has kept, and continues to keep, observers of Japan’s evolving security and energy policies guessing if it might shed its long-standing inhibitions towards nuclear weapons.

Several factors account for renewed interest in this question in recent years. First, while still a matter of public scrutiny, discussion by Japanese officials and politicians in the public domain about its strategic options—both nuclear and conventional—is less controversial than in the past. In 1999, then-Defense Agency Vice Minister Shingo Nishimura was forced to resign because of comments on Japan’s nuclear potential. In 2002, Chief Cabinet Secretary Yasuo Fukuda, Deputy Chief Cabinet Secretary Shinzo Abe, and former Liberal Democratic Party leader and current Liberal Party head Ozawa Ichiro were all the focus of media attention due to their comments on various aspects of Japan’s nuclear capabilities, but none of their careers were impacted. In Spring 2003, Defense Agency Director-General Shigeru Ishiba reiterated the government view that Japan has the right to strike North Korea preemptively if an attack is imminent. More broadly speaking, as Japanese leaders and strategic thinkers try to figure out how Japan can become more proactive on domestic and international security matters while being mindful of its constitutional constraints, they are more willing to initiate discourse on ideas that have long been taboo.

Second, over the past few years in support of US anti-terrorism efforts, Japan has taken several steps to enhance its role in international security operations in ground-breaking ways. The Anti-Terrorism Special Measures Law passed in 2001 and renewed in October 2003 continues to permit Japan’s Self Defense Force (SDF) to send ships to the Indian Ocean to provide refueling and background support to US-led anti-terror efforts in Afghanistan. The Iraq Special Measures Law passed in June 2003 allows Japan to send ground troops

to provide logistical support to US-led forces in Iraq. While the contributions provided to these military operations are non-combative in nature and minuscule in comparison to that made by many other countries, it is particularly noteworthy because it places the SDF in roles far outside the East Asia region and until recently would have been unthinkable. Moreover, it puts the SDF in roles that increasingly test the limits of the confines of Japan's peace constitution that prohibits Japan from participating in collective security. Further, Japan is increasingly placing priority in providing support for US-led security initiatives and ensuring the reliability of the US-Japan security alliance rather than complying with the prerogatives of the United Nations in international security matters. Beyond these changes, revisions to contingency laws passed in May 2003 allow Japan to take greater measures than in the past to prepare for regional contingencies.

Third, the uncertainties associated with the North Korea nuclear crisis and Japan's evolving security posture has led to speculation in policy communities worldwide about whether Japan would react by developing its own nuclear arsenal. This speculation has manifested itself in various forms. Most notably, in the fall and winter of 2002-2003, many senior politicians, government officials, and influential analysts based in Washington DC hypothesized that Japan may choose to go nuclear if China did not try to more proactively involve itself in resolving the crisis with North Korea. While these statements were more about exerting pressure on China and less about predicting when Japan would arm itself with nuclear weapons, they served as a catalyst of a debate—intentionally or unintentionally—in Washington on the likelihood of a nuclear Japan in the near future. Officials at the Japanese Embassy in Washington have admitted that managing this issue has unexpectedly absorbed much of their time during the course of 2002. Interestingly, public attention among Japanese citizens of its nuclear option regained attention as a consequence of this Washington-based debate, not as a direct result of the North Korea threat. However, this turn of events has resulted in the international media featuring numerous articles describing the growing support in and outside of government in Japan for arming itself with nuclear weapons, or at least considering the idea.

All of these developments have in some way contributed to some level of preoccupation in policy communities concerned with East Asia about Japan's nuclear intentions. Some interpret increased talk among Japanese leaders and enhanced military activity to be a sign of Japan's resurgent militarism and nuclear ambitions. And others are not as alarmed, but concerned about the regional implications of a more active, less-restricted, SDF participation in international security.

## EVOLVING REGIONAL DYNAMICS

Beyond the evolution of Japanese strategic thinking, there are several factors that make this a particularly important time to understand how Japan is likely to manage its security and nuclear policies in the near future. Namely, the geopolitical landscape of East Asia is in transition, leaving great uncertainty about future regional dynamics.

At the core of regional uncertainty is the current North Korea nuclear crisis. Five countries—the United States, Japan, China, South Korea, and Russia—are in an ongoing diplomatic tug-o-war with a belligerent North Korea that has the potential to dramatically disrupt the regional security order. The stakes for all players has never been higher. Despite over a decade of diplomatic efforts by the international community to bargain away its nuclear ambitions in exchange for energy and economic assistance, North Korea has secretly kept its uranium and plutonium reprocessing facilities intact and is thought to possess at least a few nuclear weapons as well as the capability to produce many more. The dire threat posed by the North’s possession of weapons, proven delivery mechanisms, and capacity to export nuclear technologies globally brought regional countries together with North Korea at the August 2003 Six Party Talks to work towards a comprehensive resolution. Many follow-up rounds will be necessary for any meaningful progress to be made.

This crisis has had the interesting effect of bringing together all regional countries together for the first time in a collaborative effort towards resolving a common regional security concern. Further, active Chinese involvement in mediating dialogues and behind-the-scenes negotiations with North Korea has highlighted the emergence of China as a regional conflict arbitrator. However, the reality is that each country has different priorities in exactly how to resolve the crisis that could prove divisive depending on how the crisis continues to unfold. While all countries hope for a peaceful resolution, support for maintaining a military option against the North varies greatly as do visions of what a post-crisis Korean Peninsula might look like. If successful in peacefully defusing the crisis, the collaboration by regional countries could prove to be the ultimate regional confidence-building experience and serve as a basis for handling other issues. If unsuccessful, and in particular if military conflict erupts—i.e., a US surgical strike against North Korea, a North Korean attack against Seoul or a missile launch to Japan—regional confidence could be shattered. Speculation has been rampant outside Japan about whether an escalation of tension with a nuclear North Korea will push Japan towards developing nuclear weapons. Japan has already taken measures towards bolstering regional missile defense in cooperation with the United States. More

than any other regional security issue, the manner in which this crisis unfolds has the potential to impact Japan’s security and nuclear policies in the short-term.

Beyond the immediate North Korea crisis, the future configuration of the Korean Peninsula will be a major determinant of geopolitical balance in East Asia. Regardless of how the crisis unfolds, most experts agree that the fragility of the North Korean regime will eventually bring about its collapse and reunification with South Korea. Less certain is whether a reunified Korea would possess nuclear weapons and how this will impact its relations with regional states. In addition, would a unified Korea view its national interests to be more aligned with those of China or Japan and the United States, or would it stake out a more independent position on regional issues. Naturally, how these developments unfold will be contingent on how the North Korea nuclear crisis is handled. Japan as well as other countries will no doubt be closely involved in these developments and will make adjustments to their security policies and practices accordingly.

China’s continued emergence as a political and economic regional power poses numerous questions about the future of relations among East Asian states as well as relations with the United States. China is a more active player on regional economic, diplomatic, and security fronts and has become increasingly integrated with the international community, but it is not clear whether this will be conducive to regional stability. At best, China will try to adhere to international norms that instill regional confidence that it is a responsible and benign growing power. At worst, China will challenge international norms that in turn threaten its neighbors if they are viewed to hinder its pursuit of national interests. The course China takes will be determined primarily by the sustainability of its economic prosperity, the adaptability of its political system to economic and social pressures, and the management of relations with the United States and other major world powers. And in turn, China’s future course will determine whether the region’s two major powers—a rising China and an influential, but weakening, Japan—can peacefully co-exist or will come increasingly at odds with one another. There are numerous regional issues, including economic, territorial, and weapons proliferation and nonproliferation issues, that the two sides will have to manage, in addition to unresolved matters of history. How Japan–China relations progress in the midst of all the other influences will greatly impact the future of Japanese security policy and practice.

Directly related to China’s impact on regional stability is the enduring question about the future of cross-Taiwan Strait relations. Mainland China’s unresolved relationship with Taiwan has not gained widespread attention in recent years because of greater international focus on issues related to the global war against terrorism, the war on Iraq, and the North Korea nuclear crisis. Also,

as a result of US–China cooperation in the war on terror, the issue has been quieted as a major bilateral issue. In addition, China seems to have been content maintaining the status quo in the relationship in recent years as the country undertook major political transition and adjusted to the leadership of President Hu Jintao. Nevertheless, the issue of determining whether Taiwan’s political future lies with, or independent of, China has not gone away. The volatility of the Taiwan issue will be determined in part by whether US–China relations remain amicable in coming years, developments in US arms sales to Taiwan and Chinese missile proliferation, and willingness on both sides to continue the status quo until a mutually acceptable resolution can be attained. While the situation seems relatively stable now, the potential for a cross-Strait conflict that upsets the current regional balance still exists. A Taiwan Strait conflict is one of the most feared and least discussed contingencies in Japan because of the difficult security dilemmas it would be faced with supporting the US and risking military conflict with China, or refraining from involvement and jeopardizing the US–Japan alliance.

There are many uncertainties about the future US role in East Asia stemming from shifting US priorities that will impact the roles and structure of US forward deployed troops and bilateral alliances. Since the end of the Cold War, and in particular since September 2001, the United States has placed less concern on major world power rivalries and greater emphasis on being able to deal with smaller regional and asymmetric contingencies. The US–Japan alliance has been strengthened over the past decade by measures that enhance the range of bilateral security cooperation in this regard. Now more than ever, the degree to which Japan is able to provide more direct support to US security operations and is willing to let US bases on Japanese territory to be used to respond to regional and global contingencies, will determine the vitality of the relationship in the future. An important component of this will be the increased pace of joint cooperation on regional missile defense. An inability of Japan to respond to heightened US expectations in coming years may lead to disillusionment and questions about the reliability of the alliance. While weathering some rifts, the US–Republic of Korea alliance has mostly been stable due to the long-standing and immediate threat posed by the neighboring North Korean regime. It is uncertain whether this alliance will endure in the wake of the North Korea crisis after the key rational for US military presence on the Korean Peninsula is lost. The end of the crisis on the Peninsula will lead to major US force reorganization and downsizing in both in South Korea and Japan. How this will impact the regional balance is hard to know. And finally, whether US–China relations remains constructive or becomes conflictual will be a key element in intra-regional relations. The future of US security policy and regional relations will have the most long-term effect on Japan’s future security decisions.

How exactly these developments will progress is anyone's guess. However, they will no doubt have a significant impact on how each country in the region defines its national interests and security strategies. And like for all of its neighbors, they will shape how Japanese security thinking evolves in the future. In order to get a clearer idea of where Japan's security interests and policies may lie in the twenty-first century, it is important to understand how Japan is likely to respond to changes in both its internal and external environments.

## HIGHLIGHTS OF PROJECT STUDIES

The Stimson Center project has broken down its analysis of Japan's nuclear option into three sections. In the first section on Japan's security context, Sheila Smith explores how the US-Japan alliance and the regional security environment in East Asia impact Japan's nuclear strategy. Then Ken Jimbo looks at how the global proliferation of weapons of mass destruction, Japan's weapons technology, and missile defense development impact Japan's nuclear strategy. In the second section on Japan's political context, Andrew Oros examines how Japan's peace constitution and other legislative constraints continue to impact Japan's nuclear strategy, and further, whether there are any domestic political factors that could lead to a change in Japan's stance towards nuclear weapons. Nobumasa Akiyama then provides insight into how public opinion, interests groups, and the media continue to impact Japan's nuclear strategy and whether there are changes in societal perceptions towards Japan's position on nuclear weapons. In the final section on Japan's policy context, Katsuhisa Furukawa provides background on Japan's domestic decision-making on nuclear policy as well as its track-record in disarmament diplomacy and compliance with its international treaty obligations. Then, Jeffrey Thompson and Benjamin Self address how Japan's energy security challenge and increasing reliance on nuclear energy impact Japan's nuclear strategy. Further, they discuss the technical feasibility of Japan developing a nuclear weapons program.

In her paper, "Japan's Future Strategic Options and the US-Japan Alliance," Sheila Smith contends that while the idea of a nuclear arms race in Northeast Asia seems less far-fetched today than at any other time in the nuclear age due to the North Korean nuclear threat, Japan's policy of strategic dependence on the US-Japan alliance and the US nuclear umbrella continues to emerge among Japanese leaders as the best option for insuring against nuclear threats. She admits that it is difficult to know the circumstances under which Japan might reconsider its nuclear status as little is known about Japan's strategic assessment of the nuclear era during the Cold War. What is known, she states, is that security planners have conducted periodic reviews of its

nuclear option and consistently reached the conclusion that it is not in Japan's interests to pursue this path.

Smith contends that unlike the representatives of the North Atlantic Treaty Organization alliance, Tokyo policymakers and security analysts did not openly debate the implications of changes in US force structure and its impact on extended nuclear deterrence of Japan during the course of the Cold War. She observes that while European countries were making efforts to ensure they had greater influence over US nuclear doctrine and integration with US forces, Japan preferred to avoid embracing strategic integration with US forces on the nuclear front. Smith notes that the absence of a public strategic debate in Japan on the impact of nuclear weapons on their forces has been interpreted by many observers to be an indication of the secrecy of Japan's nuclear strategy. Rather, she points out that this is a reflection of Japan's past and continued trust in the reliability of the US–Japan alliance to provide for its nuclear deterrence. Further, she emphasizes that this allowed Japan's postwar defense planning and policies on focusing on developing its own defensive military capability and preparing Japan's Self Defense Forces (SDF) to cope with local and regional conflict with conventional forces.

Smith states that for half a century now, Japan's contingency planning—including a conflict on the Korean Peninsula—has always been founded on the premise that a conflict involving Japan would only arise in the context of a broader war in which US forces would assist Japan from bases on Japanese territory. She asserts that nothing has significantly changed today in the expectations for US–Japan defense cooperation except that Tokyo is now willing to make political decisions necessary to make this possible. Especially since September 11, 2001, visions of a more integrated division of labor between Japan and the United States have emerged and brought into greater question the formula of a US–Japan response to a conflict with North Korea, especially in the case that Japan is targeted first.

Smith explains the widespread interest in senior Japanese leaders' comments on Japan's nuclear posture in recent years as a reaction to widespread recognition inside and outside Japan that it must change its approach to security in order to effectively deal with its changing strategic environment. The threat posed to Japan by North Korea creates new interest in Japan for revisiting some of the premises of Japan's security planning, but there is little support for an independent nuclear capability that would bring an end to the US nuclear umbrella as we know it. The strategic choices facing Japan today are not that different than those faced during the past and a nuclear capability would not provide any additional security guarantee for Japan.

In Ken Jimbo's study, "Rethinking Japanese Security: New Concepts in Deterrence and Defense," he discusses how the nature of extended deterrence in the context of the US–Japan bilateral alliance has shifted its focus from large-scale aggression during the Cold War to regional contingencies. In doing so, he examines changes in alliance relations and Japan's defense concept since the Cold War as well as recent challenges to US extended deterrence, such as the US Nuclear Posture Review (NPR) in 2001, missile defense initiatives, the North Korea nuclear crisis, and US–China nuclear relations. He ultimately explores the durability of the US–Japan alliance and its nuclear umbrella, concluding that: Japan's defense planners will increasingly encourage the development of indigenous strike capabilities and an open option for nuclear arms; the US nuclear umbrella remains fragile despite assurances for its continued credibility in the NPR; US–Japan regional missile defense will help mitigate Japan's nuclear desires; the North Korea crisis and China's expansion of its nuclear capabilities will be key factors in the long-term viability of the US extended nuclear deterrence.

Jimbo contends that Japan's "absolute" concept of defense—a concept which has focused on defensive capabilities and maintaining a low-profile—has been increasingly challenged since the end of the Cold War, in particular during the revitalization of the US–Japan alliance in the 1990s, the aftermath of the September 11, 2001 terrorist attacks, and the intensification of the nuclear crisis on the Korean Peninsula. He explains that a "relative" concept of defense—a concept of acquiring limited offensive capabilities enabling responses to threats—is gradually emerging. Under this continuing trend, US extended deterrence would only be a component of multiple deterrence functions, but would remain primary. And thus, an indigenous Japanese deterrent capability is likely to become more of a realistic option.

Jimbo points out how in contrast to the past, the latest US NPR identifies multiple potential opponents and a wide spectrum of contingencies including those involving China, "rogue" states like North Korea, and non-state actors in which past deterrence policies may not apply. While the new NPR should in theory enhance the credibility of extended deterrence by allowing for a wider variety of responses—both nuclear and conventional—against opponents of the US and its allies, in reality it is difficult to establish mutual deterrence with non-traditional nuclear opponents. Therefore, the reliance Japan places in US extended nuclear deterrent capabilities is more fragile than it was in the past.

Jimbo continues to discuss the strategic adjustment of the US–Japan alliance to this new reality that includes cooperation on missile defense as part of the current Bush administration's new framework for international security. He explains how Japan has gradually transitioned in the early 1990s from a

politically driven approach—focusing on the cost/benefit uncertainties, legal and constitutional considerations, and concerns of regional political fallout—to a threat-driven approach—focusing more on the benefits of missile defense deployment to alliance management in such areas as the assurance of forward deployed forces, bilateral technological cooperation, and strengthening extended nuclear deterrence. He also points out how the current North Korea crisis has added a new dimension to US–Japan alliance management. The potential range the North’s missiles includes Western US states, virtually eliminating the geographic scope of the alliance cooperation. Further, increased possibilities of a missile strike against Japan pressures it to move away from an exclusively defense-oriented policy.

While these factors have led observers to anticipate that Japan will go nuclear, Jimbo stresses that bilateral US–Japan cooperation on missile defense and assurances provided by the latest NPR will likely mitigate any need by Japan to develop a nuclear force. However, Jimbo notes that US missile defense initiatives—in particular US–Japan cooperation—is likely to impact relations with China significantly, potentially resulting in a US–China arms race if the bilateral nuclear relationship is not handled well. If regional missile defense is proven not to be credible in this context, the prospects of a nuclear Japan could be enhanced.

“Godzilla’s Return: The New Nuclear Politics in an Insecure Japan,” by Andrew Oros discusses the changes in Japanese thinking on nuclear issues and how the domestic political structure that supports it is changing. He explains that while only a few years ago public discussion of nuclear weapons as one of Japan’s security options would have been unthinkable, 2002 will be marked as the year when the nuclear option re-entered acceptable public discourse. The year saw a spate of remarks by senior Japanese leaders and politicians who made remarks, both publicly and privately, about Japan’s capability to go nuclear without any severe consequences. He attributes the new policy space to think about a nuclear option in Japan to its insecurity in the early part of the twenty-first century, due to the growing emergence and awareness of regional threats, instabilities and discontinuities in domestic politics, and diminishing economic confidence. However, he argues that discussions on the topic do not serve as evidence of a fundamental shift in the politics of nuclear weapons in Japan.

In his paper, he points to a number of reasons why Japan will not develop nuclear weapons in the near future. Oros notes that while Japan’s political institutions have undergone substantial change since the Cold War, political leaders widely continue to believe that nuclear weapons development is not in Japan’s interest for at least three reasons beyond the common nuclear-allergy argument: there is no clear military justification; it would strain regional relations; and domestic political polarization would almost be certain. As Oros

reminds us, Japan contemplated the nuclear option in the 1960s and it was for a time an intensely debated political issue which ended in a series of domestic policies and international commitments not to move in that direction. However, studies undertaken by various governmental institutions on the utility of nuclear weapons at that time have had important implications for Japan's post-Cold War policies, including on theater missile defense research with the United States and the meaning of Japan's long-standing non-nuclear principles today.

Oros points out that while there is widespread discussion of a departure in Japan from constrained security practices of the Cold War, only one policy has been abandoned: the foreign deployment of the Self-Defense Forces—but still this has occurred only under highly restrictive conditions. He explains international interest in Japan's alleged militarist rise as a result, in part, from the evolution of Japan's postwar policies constraining its military development. He identifies four primary explanations of the broad continuity of Japan's Cold War security policies and why Japanese politicians should not be expected to support a nuclear Japan anytime soon: the continuing power of political opposition; influence of public opinion over policy decisions; institutional lag resulting from constitutional and legal constraints; and concerns about its international reputation. Further, he discusses how Japan's long-standing domestic political framework of anti-militarism continues to shape policy outcomes despite changes in the political process such as public opinion, coalition-building opportunities, and its institutionalization in the policymaking process. He concludes that given changes in the domestic and international environment, it is reasonable for Japan to contemplate its nuclear option—but it is not foreseeable anytime in the near future that Japan would choose this path even when faced with a nuclear North Korea and enhanced Chinese nuclear capabilities.

In the chapter, “The Socio-Political Roots of Japan’s Non-Nuclear Posture,” Nobumasa Akiyama explores the development of the postwar socio-political structure that fostered sentiment against nuclear weapons in Japan. In particular, he discusses how anti-nuclear sentiment and the nuclear allergy phenomena have been preserved in political institutions as they developed during the course of the Cold War. He points out that Japan’s non-nuclear posture should not be regarded simply as a natural consequence of the bombings in Hiroshima and Nagasaki during World War II or as naive idolatry for peace. Rather, he says, it is the result of a complicated political process in which emotional factors towards nuclear weapons were assimilated into policy by choice.

Akiyama provides several explanations for the development of Japanese attitudes towards nuclear weapons, including: Japan’s prioritization of economic recovery over security issues in its postwar modernization period; Japan’s avoidance of nuclear issues because they were a thorn in US–Japan relations;

and the institutionalization of public sentiment regarding nuclear weapons through the creation of laws and resolutions expressing Japan's anti-nuclear posture. He further argues that security issues were effectively extinguished from discourse on Japan's political agenda because its postwar rearmament undertook such an unorthodox process and lessons were learned from politicians who lost elections by advocating rearmament.

Akiyama reviews the Daigo Fukuryu-maru incident in 1954—the Japanese fishing boat crew exposed to radioactive fallout of the US hydrogen bomb test at the Bikini Atoll in Micronesia—as an epoch-making incident in Japan's postwar history that illustrates the entrenchment of anti-nuclear sentiment in Japan's political process. This incident forced the Japanese government to deal with a tricky dilemma—how to appease the heated public display of contempt for nuclear weapons and prevent anti-nuclear sentiment from transforming itself into a nationwide nationalistic anti-US feeling. Despite entrenched feelings, Japan has been able to develop the use of nuclear energy while limiting prospects of developing nuclear weapons by vowing its use to be only for peaceful purposes and relying on the United States for both nuclear energy cooperation and an extended nuclear deterrent.

Akiyama further identifies how Japan maintained a non-nuclear posture despite changes in its postwar security environment, citing the examples of Japan's response to: China's successful nuclear test in 1964; prospects of not getting Okinawa back from the United States unless it agreed to the stationing of US nuclear weapons; questions about the credibility of the US nuclear umbrella in the late 1960s when the United States withdrew from Vietnam; and hawkish nationalists who sought independence from the United States and thought nuclearization to be in Japan's interests.

He maintains that while Japan's polity has functioned to prevent Japan from going nuclear, there are fragile aspects of Japan's position including that: national consensus on the issue was formed not by conscious choice but by anti-nuclear sectors of society; the gap between the posture of the government which advocated a US nuclear umbrella and public opinion which was idealistically non-nuclear; and the organized representation against nuclear weapons in domestic politics.

Akiyama ends by stressing that Japan will not be able to wipe out skepticism of a nuclear Japan as long as its argument in defense of its anti-nuclear posture continues to rely on stressing Japan's tragic experiences in the past as well as its peace constitution. Rather, more rational explanations are needed, such as the calculation of strategic and diplomatic costs and benefits, as well as rising political costs for pursuing its nuclear option in the domestic and international arena.

In his chapter titled, “Making Sense of Japan’s Nuclear Policy: Arms Control, Extended Deterrence, and the Nuclear Option,” Katsuhisa Furukawa asserts that Japan must develop a new framework for its nuclear policy that clarifies its position on the development of nuclear weapons in response to changes in its regional security environment and growing concerns about the potential of Japan’s nuclearization. To this end, he illustrates the complexities Tokyo faces in this endeavor by examining the trend of Japan’s diplomacy and national security policy in the post-Cold War era; how strategic contexts—in particular the North Korean threat—have shaped Japan’s discussion of its nuclear option; and Japan’s endeavor to enhance the credibility of US extended deterrence through strengthening the US–Japan alliance.

Furukawa explains how Japan’s neighbors view with unease Japan’s gradual expansion of the scope and depth of its national security policy and strategy as it transforms itself from a pacifist state to a normal country. Thus, he contends that Japan faces the challenge today of creating a framework to manage its policies as it evolves its regional and international role in security matters. He explains how detailed official Japanese studies of its nuclear option have concluded that it would not bring any strategic merit for Japan, but notes these studies assume the continued credibility of US extended deterrence. He points out that while various legal and policy instruments in Japan that institutionalize Japan’s nuclear allergy provide a constraint on Japan’s nuclear option, it is ultimately the US extended nuclear umbrella that eliminates this need. He reminds us how the credibility of the deterrent and abandonment have always been a concern during and after the Cold War and that in this way Japan will continue to make every effort to ensure the US deterrent remains credible through enhancing the bilateral alliance.

Furukawa points out that while Japan appreciates US extended deterrence, the current Bush administration’s aggressive pursuit of nuclear deterrence—i.e. Iraq and North Korea—leaves Japan little room to develop independent credibility on strengthening arms control and nonproliferation regimes according to national interests. Nevertheless, he demonstrates how Japan has become more active diplomatically on international nonproliferation issues, both bilaterally and multilaterally, in recent years through four case studies: the North Korea nuclear crisis since 2002; Chinese military modernization and the Comprehensive Test Ban Treaty; Russia’s denuclearization; and US–Japan Policy coordination on arms control.

He identifies several areas of tension between Japan’s increasingly assertive role on the international security front and ongoing constraints such as: historical issues with its neighbors; suspicions about its nuclear recycling program and pursuit of energy security; conflicting interests between deterrence

and arms control—i.e., the US nuclear umbrella and US cooperation on regional missile defense; and the dilemma of asserting greater assertiveness internationally with a currently weak domestic institutional capacity.

Finally, Furukawa emphasizes how pressing it is for Japan to develop a new policy framework to manage its nuclear policy in the twenty-first century in areas including: strengthening the US–Japan alliance; initiating US–Japan strategic dialogue with China; establishing a credible record in promoting nuclear safeguards and treaty compliance as well as verification; and taking a lead in multilateral cooperation for energy security in the Asia-Pacific.

The final chapter, “Nuclear Energy, Space Launch Vehicles, and Advanced Technology: Japan’s Prospects for Nuclear Breakout,” by Jeffrey Thompson and Benjamin Self, gives an overview of the important aspects of Japan’s current nuclear policy, both with regard to energy and weapons use, which are essential for understanding Japan’s priorities on nuclear issues in the future. It then explores the various non-nuclear dimensions of a nuclear deterrent capability, which are often overlooked or oversimplified when considering how likely Japan is to acquire nuclear arms.

The first section discusses how and why Japan’s quest for energy security has resulted in a great dependence on nuclear energy, which now provides 20 percent of Japan’s energy needs and 35 percent of total electricity needs. It provides information about the key elements of Japan’s nuclear energy program of concern—the reactor-grade uranium, reactor-grade plutonium, and mixed-oxide (MOX) fuel which Japan is expending great efforts to be able to produce and recycle domestically for use in commercial reactors. The authors explain why Japan has placed so much effort on developing plutonium resources and why it has a growing surplus of plutonium, which many observers suspect may be diverted for the production of nuclear weapons.

Thompson and Self also outline the key elements of Japan’s domestic legal framework for nuclear energy, namely the Atomic Energy Basic Law of 1955 and the Three Non-Nuclear Principles resolution of 1971. They also cover the significant aspects of Japan’s international framework for the peaceful use of nuclear energy and commitment to remain a non-nuclear weapons state including membership in the International Atomic Energy Association (IAEA), ratification of the Treaty on the Nonproliferation of Nuclear Weapons (NPT), and various bilateral nuclear cooperation agreements. Also discussed is Japan’s institutional mechanism for managing nuclear policy, including the roles of key government offices such as the Prime Minister’s Cabinet Office, the Atomic Energy Commission, the Nuclear Safety Commission, and several public corporations with research, development, and oversight responsibilities. Thompson and Self also touch on areas of priority for the Japanese government

regarding nuclear energy policy according to the latest Long-Term Program, released every five years by the Atomic Energy Commission.

Thompson and Self provide insight to common questions regarding the intentions and capabilities of Japan to develop nuclear weapons, discussing whether Japan has the technical capability to develop nuclear weapons and if Japan's increasing self-sufficiency in nuclear energy indicates an intention by Japan to go nuclear. They also examine why Japan has invested heavily in the controversial fast-breeder reactor, what legal and technical restrictions Japan faces in developing nuclear arms, and what alternatives, if any, Japan has to provide for its long-term energy security other than a plutonium-based nuclear energy program.

In the final section, Thompson and Self investigate the non-nuclear components of a potential Japanese nuclear deterrent—delivery vehicles, deployment, and command and control. They pay special attention to the applicability of Japanese space launch vehicles to military purposes, arguing that they have been made particularly unsuitable for use as ballistic missiles. Investigating other aspects, they note that Japan has neither developed an appropriate capacity to deploy a nuclear arsenal, nor has it developed the framework and institutions for requisite command and control over nuclear arms. As these factors have been studied and understood by Japanese analysts and strategists, Japan's restraint should be taken to indicate a conscious choice to maintain a reassuring gap between the status quo and any possibility of a nuclear breakout.