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Asia's Major Powers and the Emerging Challenges to Nuclear Stability Among Them

Brad Roberts

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Asia's Major Powers and the Emerging Challenges to Nuclear Stability among Them

Brad Roberts
Institute for Defense Analyses

and

Michael Keifer
Project Manager
*Advanced Systems and Concepts Office
Defense Threat Reduction Agency*

February 2009

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PREFACE

This paper was prepared with the sponsorship of the Defense Threat Reduction Agency as part of a broad review of emerging nuclear stability issues in Asia. Sponsored by DTRA's Advanced Systems and Concepts Office, this paper is the latest in a continuing series of projects sponsored at IDA to explore alternative nuclear futures and their implications for U.S. policy and strategy.

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SUMMARY

With the end of the Cold War, an international nuclear order dominated by concerns in the transatlantic security environment has given way to a different world, one in which the Asian factor in the global nuclear equation appears to be on the rise. This paper examines the evolving relationships of strategic military power among Asia's major powers with the objective of identifying potential sources of instability and their policy and strategy implications.

This paper begins with a catalogue of key factors in Asia's nuclear landscape in order to put the major power dimension in context. These include:

1. The emergence of additional nuclear weapon states in Asia, such that Asia is now the most nuclearized of all continents.
2. The increasing potential for a cascade of proliferation in Asia as "tipping points" in its subregions are reached.
3. The growing strategic reach and depth of Asia's nuclear-armed states.
4. The diversification of the strategic postures of Asia's major powers.
5. The emergence of new nuclear supplier networks.
6. The dynamism in the strategic military postures of the major powers.
7. The fact that the cast of Asia's major powers is changing, with important but unpredictable consequences for the balance of power.

The sixth factor in this list is then explored in detail. China is engaged in a modernization and build up of its strategic military capabilities in order to prevail in conditions of local high-tech wars under the nuclear shadow. Russia is pursuing a balanced modernization of its nuclear forces in order to ensure that its vital interests are not jeopardized despite its loss of superpower status. India is developing a credible minimum deterrent in order to maintain a balance of power and influence in Asia. Japan is relying on extended nuclear deterrence from the United States while also hedging in order to ensure its security in a volatile environment. And the United States is transforming its strategic posture by de-emphasizing the nuclear component and increasing reliance on defenses, non-nuclear strike capabilities, and infrastructure. In each case, these countries face a series of complex choices about whether and if so, how

to modernize or otherwise develop new capabilities. These choices appear heavily contingent on the choices that others will make vis-à-vis their own postures. This includes the United States, which faces a long list of decisions about how to tailor its strategic posture in the decade ahead.

This review of present postures and future strategic military choices of Asia's major powers raises an important question: is the whole more than the sum of these parts? Is there an Asian major power nuclear system that is interrelated and interacting in some complex whole? This analysis suggests strongly that such a system is now taking shape. Its key attributes are the interconnection of the force modernization trajectories of Asia's major powers, the increasing dynamism of their interaction, and the growing complexity as a bipolar system has given way to something far messier. So far at least, the interactions in this emergent system seem loosely and not tightly coupled.

Within this emergent system, three potential sources of instability stand out. The first is unpredictability. Each of Asia's major powers is uncertain about what the other countries are doing to modernize or transform their strategic postures and why they are doing so. They have responded to this uncertainty by hedging, with the risk that this will lead to worst-case planning assumptions by others.

The second potential source of instability is the intensification of competition that may result from the current dynamism and uncertainty. One form of intensification could be an arms race. But other forms are possible. And new forms of competition would likely have a corrosive impact on the political and economic relationships among these states, with a corrosive effect on their commitment to serving as "responsible stakeholders."

The third potential source of instability derives from the unique role of the United States in the region as an extender of deterrence and assurance. A sudden loss of confidence in the United States as a security guarantor would have far-reaching implications as states respond by creating deterrents of their own—or more advanced hedging strategies.

Any one of these three factors, if it were to mature fully, would send the relationships among Asia's major powers in new and unwelcome directions. Cumulatively, their impact could be substantial, calling into question the viability of the existing Asian security order more generally.

The objectives of U.S. policy should flow from these potential sources of instability. Policy should seek to lend a sense of predictability of the Asian nuclear order,

to avoid an intensification of strategic military competition, and to reinforce the reputation of the United States as a guardian of nuclear stability.

Historically, to advance such objectives, the United States has pursued a largely ad hoc approach, working within global approaches to deal with nuclear problems in Asia. A more strategic approach is needed in light of the emerging system. What key organizing concepts might guide the development of such an approach? One such approach is to embrace laissez-faire, on the argument that the United States is so powerful that it can afford to ignore instability in Asian major power relations, even in the nuclear domain. A second approach is to pursue nuclear abolition, on the argument that removing the nuclear equation would eliminate the problems of instability that come with it. A third approach is to emphasize hedging, on the argument that the nuclear problem in Asia is not here and now but is somewhere in Asia's future, and its risks can be managed by taking out military forms of insurance. A fourth approach is to compete assertively for strategic military advantage now, on the argument that the problem is here and now and not somewhere in the future and that by failing to compete the United States will create new sources of instability. A fifth approach is to emphasize dissuasion, on the argument that the problem is not in the here and now but somewhere in the future, and that hedging alone is inadequate, since more can and should be done to create disincentives to competition.

This paper argues that U.S. strategy should instead be built around a sixth organizing concept: anticipatory threat reduction. This concept has elements of competition and hedging, but its distinctive attribute is its efforts to identify and tackle specific potential sources of instability in the Asian major power nuclear system. What would be the objectives of this approach?

- Continued and indeed deeper nuclear restraint by Russia, which is essential to nuclear stability in Asia.
- Continued and indeed deeper restraint by China.
- Restraint by India.
- Nuclear restraint by U.S. allies and friends.
- The continued viability of the global treaty regimes. As the foundation of nuclear restraint in Asia, and especially as the normative framework for major power cooperation to deal with the challenges to nuclear order, they are irreplaceable.

The 2001 “new strategic framework” offered one approach toward some of these ends. Does it remain relevant in light of intervening developments? The desire to lend strategic predictability and continue arms control restraint appears today at least as strong as in 2001, despite changes in political expectations about Russia and its relationship with the West. The desire to assure China also appears to remain to this day, although it is still less pronounced than vis-à-vis Russia. The obvious commitment of the Obama Administration to arms control as a tool of policy suggests a renewed interest in utilizing such approaches as part of the “lead-but-hedge” strategy. From an Asian stability perspective, the potential contributions of continued U.S.-Russian reductions in deployed strategic weapons would be useful. But it would not contribute a great deal to the management of stability challenges in Asia. The role of arms control must evolve if it is to be relevant to this emerging set of challenges. The preservation and possible adaptation of the Treaty on Intermediate-range Nuclear Forces (INF) is essential, as would be some expansion of arms control to encompass Russian tactical nuclear weapons. The prospect of deeper strategic reductions raises more intense questions about how to ensure that China does not respond with a build up to parity or equivalency. It also brings out more starkly the ways in which developments in the non-nuclear elements of the U.S. strategic military toolkit, especially missile defense and non-nuclear strategic strike, poses challenges to stability in the eyes of some of Asia’s major powers. Whether and how arms control approaches can be made relevant to this emerging problem set are open questions, but this will require innovation beyond simple extension of START.

A commitment to this strategy would also invite new and more difficult questions about how to tailor the overall U.S. strategic posture to these objectives. So far at least, the United States has pursued a “Goldilock’s Approach” to the development of its strategic posture: “big enough” to negate the potential coercive power of new rogue state strategic capabilities but not “so big” as to call into question the viability of the deterrents of Russia or China. If the United States continues to develop missile defenses and non-nuclear strike capabilities, it will face specific programmatic decisions along the way about whether to develop capabilities that could challenge Russia or China. If it proceeds to do so for other reasons, then it must also provide credible assurances to both, while

also tolerating—without countervailing development activities of its own—the efforts to of each to sustain viable deterrents.

The paper closes with a series of questions and answers about the Asian major power nuclear landscape.

How different is Asia’s nuclear landscape from the transatlantic one? The short answer is *very*. In the transatlantic context, the nuclear shadow appears to be in retreat, whereas in Asia it appears to be lengthening.

Are there distinctly Asian roles for nuclear weapons? From the perspective of the major power system in Asia, the primary national security role of nuclear weapons seems less about deterrence than about self-assurance.

Is the Asian nuclear order stable? It is certainly increasingly dynamic. The increasing complexity and interconnectedness of the Asian major power nuclear system makes it vulnerable to new forms of competition. But instability is not foreordained. It can be shaped by policy.

What should the United States do? It should treat these issues with the seriousness they deserve. It should reject simplistic approaches, such as *laissez-faire* or competition for supremacy, that have the allure of doing something while contributing little to the amelioration of the sources of conflict. The U.S. should embrace a strategy that anticipates the emergence of future forms of competition that would be dangerous and destabilizing and set in place a new “new strategic framework” that sustains U.S.-Russian restraint and expands its processes and structures to encompass the other important major power actors in Asia, especially China. But this will require looking beyond a replication of START in some new form in the U.S.-Russian relationship to take a much broader view of the needed framework of strategic restraint that serves the interests of major power stability in Asia.

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I. ASIA'S MAJOR POWERS AND THE EMERGING CHALLENGES TO NUCLEAR STABILITY AMONG THEM

A. INTRODUCTION

French nuclear expert Therese Delpech has argued that “the most complex nuclear questions are located in Asia.”¹ In her view, “there are two nuclear issues which have so far attracted little attention: first, the wide gap between Asian and Western nuclear perspectives at the dawn of the third millennium; and second, the possible role of nuclear weapons in a context which has little in common with Cold War experiences.”² This observation suggests a number of questions. How different is Asia’s nuclear landscape from that of the transatlantic setting? What are the distinctly Asian roles of nuclear weapons? Is nuclear order in Asia stable? What does stability mean there—or should it mean? What are the sources of instability in Asia’s nuclear order? What implications, if any, follow for U.S. policymakers? What should the United States do to address the complex nuclear questions in Asia so as to reinforce the sources of stability and order? For purposes of this analysis, Asia is defined as encompassing the following subregions: Northeast Asia, Southeast Asia, the Western Asia-Pacific, South Asia, and Central Asia, but excluding the Middle East. Also for purposes of this analysis, the United States is defined as an Asian power, given its important role in the region.

As important as such questions might be early in the 21st century, they have not been the subject of sustained or systematic exploration. The available scholarship on nuclear problems in Asia focuses mainly on the nuclear histories and futures of individual countries. In contrast, there has been very little scholarship devoted to the exploration of Asia as a nuclear system with its own unique characteristics and dynamics.³

1. Therese Delpech, “Nuclear Weapons and the New World Order: Early Warning from Asia?” *Survival*, Vol. 40, No. 4 (Winter 1998-99), p. 57.

2. *Ibid.*, p. 76.

3. There are three exceptions to this generalization. A decade ago, Yale professor Paul Bracken authored a book exploring the implications of “a second nuclear age, an Asian nuclear age” that, in his view, promises to call into question the West’s military dominance of international affairs. See Paul Bracken, *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age* (New York: Harper Collins, 1999). The second and more recent exception is an edited volume of country case studies prepared by Muthiah Alagappa of the East-West Center, who argues that nuclear weapons “cast a long shadow...with far-reaching consequences for security and stability in the Asian security system” (page x). See Muthiah Alagappa, ed., *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia* (Stanford, Calif.: Stanford University Press, 2008). The third exception was a

With the aim of developing some preliminary answers to the questions noted above, this paper explores one key determinant of the emerging Asian nuclear order: the relationships of strategic military power among Asia's major powers. This raises a critical question: who are those powers? Not all of Asia's major powers are nuclear powers, and not all of Asia's nuclear powers are major powers. This analysis will focus on the strategic military postures of and relationships among China, Russia, India, Japan, and the United States (which is one of Asia's most important military powers). Before doing so, however, the paper begins with a review of key factors in Asia's nuclear landscape, so that the major power topic can be put in proper perspective. After all, the major power aspect cannot easily be separated from the other elements of Asia's nuclear order. The paper will then review briefly the ways in which the strategic postures of these countries are evolving and the key perceptions and interests that seem to be motivating those changes. The paper then goes on to explore how these separate national activities interact and to identify the potential sources of instability associated with those interactions. It turns then to a discussion of policy implications. Although the scholarship on the Asian nuclear system remains underdeveloped, there are already some preliminary hypotheses and indeed competing notions about how best to manage nuclear instability there. Different strategies reflecting different perceptions and assumptions about the requirements of nuclear order in Asia are already in play, and these are briefly sketched out for discussion purposes. The paper closes with a brief set of observations and conclusions.

B. KEY FACTORS IN ASIA'S NUCLEAR LANDSCAPE

As Paul Bracken has argued, "it is easy to forget just how much the cold war was a European affair that spilled over to other regions, and how deeply Eurocentric nearly everything about the first nuclear age really was."⁴ To be sure, the nuclear confrontation

white paper prepared in 2001 by this author with the sponsorship of the Defense Threat Reduction Agency, which surveyed key factors in the East Asian nuclear landscape and their policy implications. The paper set out five alternative nuclear futures encompassing piecemeal erosion of the then-existing nuclear order, a wholesale collapse occasioned by widespread proliferation, triangular reemphasis among the major nuclear powers, preservation of the status quo, and nuclear rollback. See Brad Roberts, *East Asia's Nuclear Future: A Long-Term View of Threat Reduction*, Paper P-3641 (Alexandria, Va.: Institute for Defense Analyses, 2001). A revised version of this paper was developed in partnership with Shen Dingli of Fudan University in Shanghai, China, and was subsequently published as Roberts and Shen, "The Nuclear Equation in Asia," in Burkhard Schmitt, ed., *Nuclear Weapons: A New Great Debate*, Chaillot Paper 48 (Paris: Institute for Security Studies of the Western European Union, 2001).

4. Bracken, *Fire in the East*, p. 96.

between East and West in the Cold War cast a long and dark shadow over Asia, as both sides deployed nuclear forces there and the region became caught up in the global web of deterrence. The Soviet Union and the United States deployed both strategic systems and tactical weapons there.⁵ In this context, the modest nuclear capability of China seemed largely irrelevant to that global web, although both the United States and Soviet Union worried about China as a potential nuclear adversary.⁶ The implementation of the Nuclear Non-Proliferation Treaty (NPT) also had the positive effect in the region of ending debate in many countries, and development activities in some, about whether to acquire national nuclear forces of their own.⁷ In short, in what Bracken refers to as the first nuclear age, there was no Asian nuclear system or Asian nuclear order as such.

Today, however, with the Cold War now nearly two decades in the past, the new and distinctive features of the Asian nuclear landscape are emerging. These include the following.

The first is the emergence of additional nuclear weapon states. Since the end of the Cold War, India, Pakistan, and North Korea have tested nuclear devices and developed missile delivery systems while also further developing the infrastructures associated with the production of increased numbers of warheads and delivery systems. This means that Asia is now the most nuclearized of all the continents, in the sense that it has the most nuclear-armed states and also many with high latent weapons potential.

A second key factor is the increasing potential for a cascade of proliferation in Asia as “tipping points” in its subregions are reached. The potential for a relatively sudden cascade of proliferation is most pronounced in Northeast Asia, where there is new concern about whether Japan might feel compelled to develop a national deterrent of its own in response to North Korea’s fielding of a small nuclear force and potential reactions in the region. The potential for a cascade is less pronounced in Southeast Asia, where the latent potential for rapid capability-creation is far less developed—but where a number of countries harbored nuclear weapons ambitions in the lead-up to the NPT (including Indonesia and Australia, among others). A cascade is also conceivable in Central Asia,

5. John Lewis Gaddis, *We Now Know: Rethinking Cold War History* (New York: Oxford University Press, 1997).

6. Ibid.

7. See Kurt Campbell, Robert Einhorn, and Mitchell Reiss, *The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices* (Washington, D.C.: Brookings Institution Press, 2004). For a chronological review of the steps by countries in Asia and elsewhere to develop the scientific, engineering, and nuclear means to develop nuclear weapons, see Alexis Blanc and Brad Roberts, *Nuclear Proliferation: A Historical Overview*, D-3447 (Alexandria, Va.: Institute for Defense Analyses, 2008).

where the post-Soviet states have now, for the most part, shed the nuclear-weapon inheritance of the Soviet Union, but where questions of future nuclear status remain unsettled. In Southwest Asia and the Middle East, the potential for a cascade is of course especially pronounced, as states there calculate how to secure their long-term interests if and as Iran builds and deploys nuclear weapons. The simple point here is that each of Asia's subregions is marked by the potential for a future spurt of proliferation, not least because most have some latent capabilities in place or are now putting them in place as they develop nuclear energy programs.⁸

A third key factor in Asia's emerging nuclear landscape is the growing strategic reach and depth of Asia's nuclear-armed states. Strategic reach comes in the form of delivery systems that are capable of reaching ever more distant targets. The progress of Asia's nuclear powers in developing and fielding such capabilities has been steady.⁹ Strategic depth comes in the form of the movement beyond minimum deterrence postures (in the form of a very small number of weapons held as a simple existential deterrent) to the development of more modern, diverse, and capable deterrent postures promising assured retaliation. Here, too, the progress of Asia's nuclear powers has been steady.¹⁰

A fourth factor is the diversification of the strategic postures of Asia's major powers. In Bracken's "first nuclear age," nuclear relationships among states encompassed just about everything that needed to be understood about the strategic military landscape. In the emerging landscape, nuclear capabilities are being joined by other military capabilities of strategic consequence. The United States, Japan, and India are following the Soviet Union/Russia in fielding missile defenses as part of their strategic postures. The United States is following China in fielding strategic missiles with non-nuclear strike capabilities, with others such as Japan sometimes seeking to follow suit. Space-based operational capabilities are increasingly important to the strategic military postures of the United States, China, Russia, Japan, and India.

A fifth factor is the emergence of new nuclear supplier networks. Throughout the first nuclear age, the diffusion of nuclear technology, materials, and expertise was largely a top-down matter, as they flowed from the established weapon states to others. In the

8. For further information on these subregional histories and dynamics from the nuclear perspective, see Roberts, *East Asia's Nuclear Future*. See also the project of DTRA/ASCO on Over the Horizon Proliferation Risks.

9. For one recent summary of these trends, see Testimony by Lieutenant General Henry A. Obering III, USAF, Director, Missile Defense Agency, "Missile Defense Program and Fiscal Year 2009 Budget," Senate Armed Service Committee, Subcommittee on Strategic Forces, April 1, 2008.

10. More discussion of this point follows in a subsequent section.

emerging era, such diffusion is more horizontal than vertical. The A.Q. Khan network, based in Pakistan, is the epitome of this process—a quasi-formal network, embedded in a larger web of legitimate and illegitimate commerce in technologies, materials, and expertise, apparently enjoying some limited support from elements of the state structure(s).¹¹ The reported assistance of North Korea to Syria in the development of missiles and nuclear infrastructure is another indicator of this increasingly horizontal flow.¹²

A sixth factor is the dynamism in the strategic military postures of the major powers. China is “modernizing” and “building up” its nuclear and missile forces. Russia is pursuing “balanced modernization.” India is developing an initial “credible minimum deterrent.” Japan is hedging while relying on extended deterrence. And the United States is “transforming” its strategic posture. This sixth factor is the focus of the remainder of this paper.

A seventh and final factor merits inclusion in this short list of key factors in the Asian nuclear landscape: the simple fact that the cast of Asia’s major powers is changing. In Asia, there are many rising powers—that is, states that are developing economically and militarily and that aspire to a more consequential role in the international system. Some, like China, conceive themselves as “returning” powers and thus reclaiming their rightful place in the world as opposed to challenging the prevailing order. Others, like Japan, debate today what it means to be a “normal” state in the international system, and whether a nuclear deterrent is a normal attribute of a normal power. South Korea sees itself too, as rising (as presumably would a reunified Korea). Moreover, Asia’s rising powers are bound together in a complex and dynamic economic system, which creates new forms of leverage over one another but also new types of common interests that need to be safeguarded collectively. Such factors constrain the will for unbridled competition in the strategic military domain that might otherwise exist. It seems obvious that the balance of power is shifting but the complexity of the balance and its multiple layers make it difficult to predict the type of Asian order that might emerge.

This survey of key factors in Asia’s nuclear landscape raises an important question about whether Britain and France count somehow as factors in Asia’s nuclear landscape. By and large, they seem insignificant there. With the important exception of

11. David Albright and Corey Hinderstein, “Unraveling the A.Q. Khan and Future Proliferation Networks,” *Washington Quarterly*, Vol. 28, No.2 (Spring 2005), pp. 111-128.

12. Peter Crail, “U.S. Shares Information on NK-Syrian Ties,” *Arms Control Today*, May 2008.

Russia, no Asian power has made the case that somehow their nuclear deterrents are “pointed” at Britain or France. Conversely, there have been no statements by political leaders in Britain or France attributing an Asian role to their national deterrents, though Asia is also not ruled out in their general cases for using nuclear deterrence to promote international stability.¹³

These seven factors suggest that a distinct Asian nuclear order is emerging, one that has little to do with the Cold War and much to do with Asia’s changing geopolitical and technological landscape. Each of these factors brings with it a significant potential for instability by creating specific problems for which the existing security order provides no meaningful solution. Moreover, there are connections among these factors and indeed some of them are closely linked. This underscores the difficulty of separating out a single feature—in this case, the major power dimension—as a way to understand nuclear stability and instability in Asia. To be sure, that dimension has its own unique dynamics, as argued further below. But what happens in the major power aspect will have significant implications for the rest of the Asian nuclear system—and vice versa. Later in this paper some of these connections will be explored.

This dynamism might be interpreted to suggest that Asia will be the dominant factor in the global nuclear landscape in the 21st century. Such a conclusion would seem premature. A crossing of the nuclear tipping point in the Middle East over the coming two or three decades could—if it occurs—have globally significant repercussions, especially if a revolutionary state armed with nuclear weapons were to emerge there. It is important also to consider the possibility of spillover effects across subregions and especially the possibility that developments in the nuclear landscapes of Asia and the Middle East could significantly impact Europe’s nuclear landscape, if not also other regions such as Africa. The central purpose of this paper is to focus on the under-explored topic of nuclear relations among Asia’s major powers without also suggesting that those relations will determine the global nuclear future.

13. For supplemental analysis of French perspectives discussing concerns about nuclear stability in Asia, see Bruno Tertrais, “France and Nuclear Disarmament: The Meaning of the Sarkozy Speech,” *Proliferation Analysis*, Carnegie Endowment for International Peace, May 1, 2008. See also Tertrais, *Nuclear Policies in Europe*, Adelphi Paper No. 327 (London: Oxford University Press for the International Institute for Strategic Studies, 1999) and “The Last to Disarm? The Future of France’s Nuclear Weapons,” *Nonproliferation Review*, Vol. 14, No. 2 (July 2007), especially page 264, where the authors state that the potential threat from Asia to Europe is “far from being dismissed.”

C. ASIA'S MAJOR NUCLEAR POWERS IN TRANSITION

The sixth factor listed above addresses the dynamism of the strategic postures of Asia's major powers. This section briefly reviews what these countries are doing to develop their strategic postures, why they are doing it, and what next choices they seem to face. This assessment should be understood as a sketch rather than a detailed and definitive picture. After all, the information available on "what" and "why" is incomplete and in some cases unreliable.¹⁴ And the information on "what next" is largely inferential.

China is engaged in a modernization and build up of its strategic military capabilities. As China's various Defense White Papers of the last decade have amply attested, the People's Liberation Army is well launched on an effort to make major progress over the coming decade in developing the means to win local wars under modern high-tech conditions. As the 2006 Paper makes explicit, the Second Artillery is given the same status as a Service in this effort. It is developing concepts and capabilities for waging "high tech local war under the conditions of nuclear deterrence."¹⁵ It is modernizing its force of land-based nuclear-tipped missiles, with the deployment of solid-fueled road-mobile systems and upgrades to its small force of silo-based ICBMs. It is also diversifying its nuclear strike force, with the addition of not just road-mobile capabilities but also a renewed commitment to a sea-based nuclear strike capability, as well as modern bomber-delivered weapons.¹⁶ It is diversifying in other ways as well. In the early 1990s, the Second Artillery was given a requirement to develop a force of conventionally-tipped missiles¹⁷ and accordingly has "shifted from the single undertaking of guided missile nuclear assault to nuclear and conventional 'dual deterrence and dual

14. It is useful to recall the cautionary conclusion of the March 2005 report of the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction to the effect that "we still know disturbingly little about the weapons programs and even less about the intentions of many of our most dangerous adversaries." (From the cover letter to the President dated March 31, 2005.) To be sure, Asia's major nuclear powers do not necessarily fall into the category of "our most dangerous adversaries," and the democratic states are largely transparent on such matters. But it is important also to recall that much of the information in the public discussion of foreign WMD capabilities is derived from government sources of one kind or another and thus to treat such information as informative but not necessarily fully authoritative or accurate.

15. Yu Jixun, ed., *The Science of Second Artillery Campaigns* (Beijing, China: PLA Press, 2004), p. 27.

16. See the *Annual Report to Congress on the Military Power of the People's Republic of China*, 2008, U.S. Department of Defense.

17. Mark Stokes, *China's Strategic Modernization: Implications for the United States* (Carlisle Barracks, Pa.: U.S. Army War College, 1999), especially chapter 4, "Dawn of a New Age: China's Long-Range Precision Strike Capabilities, pp. 79-108.

operations.’’¹⁸ China is also pursuing non-nuclear means to achieve strategic effects, including cyber warfare and counterspace capabilities.¹⁹ China appears not to have pursued missile defenses as part of its overall strategic posture, though there are some limited indications to the contrary, but it has pursued a very substantial program of underground tunneling and other civil defense measures as a form of passive strategic defense.²⁰

The intended future pace and scale of China’s strategic modernization effort, and its force structure and other impacts, are not a matter of public knowledge. The build-up of its force of short-range ballistic missiles near the Taiwan strait over the last decade, from roughly zero to more than a thousand, suggests the alarming possibility that a rapid and far-reaching build-up of other capabilities may follow. This would constitute, however, a departure from five decades of established practice whereby China has been satisfied that its nuclear strategy is adequately supported by very modest force levels.

Why is China modernizing and building up its strategic forces? In part, it is following the dictates of its national military strategy—the so-called Military Strategic Guidelines for the New Period—promulgated by China’s President Jiang Zemin on January 13, 1993, which continues to guide China’s defense planning process.²¹ It is developing non-nuclear strike capabilities in order to prevail in local wars under high-tech conditions. It is developing improved nuclear-strike capabilities in order to sustain a doctrine of absorbing the first blow and counter-attacking and re-attacking out of a mounting concern about the credibility of its no-first-use doctrine in light of the improving capabilities of other countries. This concern predates the U.S. articulation in the 2001 Nuclear Posture Review of its “New Triad” concept, but Chinese anxiety about the credibility of its posture was greatly emphasized in consequence. China’s modernization effort is driven in part by the perception that its doctrine is put at

18. Yu, ed., *The Science of Second Artillery Campaigns*, p. 15.

19. See *Annual Report to Congress*, 2008, p. 21.

20. On China’s interest in missile defense, see Brad Roberts, *China and Ballistic Missile Defense: 1955 to 2002 and Beyond*, Paper P-3826 (Alexandria, Va.: Institute for Defense Analyses, 2003). On China’s passive strategic defense, see reports of a decades-old tunneling project (the so-called Great Wall Project) resulting in over 2000 kilometers of tunnels a kilometer or so underground in mountainous terrain for the purpose of hiding components of China’s missile force. See for example Sing Tao Ji Pao, “‘Great Wall Project’ Said to Deter Taiwan Independence,” in Chinese and translated in FBIS, November 26, 1999.

21. See David Finkelstein, “China’s National Military Strategy: An Overview of the ‘Military Strategic Guidelines’,” in Roy Kamphausen and Andrew Scobell, eds., *Right-Sizing the People’s Liberation Army* (Carlisle Barracks, PA: U.S. Army War College, 2007). See also Chu Shulong and Rong Yu, “China: Dynamic Minimum Deterrence,” in Alagappa, ed., *The Long Shadow*.

significant risk by the combination of non-nuclear strike and weak missile defense (and the enabling command and control systems). China's experts assert that the development of these U.S. capabilities might embolden the United States to attempt a preemptive strategic strike by non-nuclear means. Moreover, they argue, if such an attack were to kill only a few, whereas China's deterrence strategy is based on the threat of killing millions in retaliation, the United States would not then see China's threats as credible. In short, they argue, the diversification of the U.S. strategic posture has decreased the credibility of China's no-first-use policy and thus it is responding with adaptations to its posture aimed at preserving such credibility.²²

It is important also to note that China is also deploying new forces to improve its regional deterrent. These include new mobile missiles and improved and much more numerous dispersal sites for them in regions neighboring India.²³

China's modernization and build up are also underpinned by a political calculus. The People's Republic of China recalls its pre-nuclear history with a certain bitterness, as it was subjected to a number of nuclear-backed threats from the United States. Hence one of Mao's original dictums about China's nuclear program stated that its purpose was to "smash nuclear bullying." China's expert community on nuclear security largely holds to the view that the United States is seeking "absolute security," by which they mean that the United States is seeking to escape the nuclear balance of power in order to be able to use military power whenever and wherever it pleases, including against major and nuclear-armed powers (and even for ideological purposes), and without fear of retaliation by nuclear or other means. The fact that China continues to modernize and diversify its strategic toolkit seems to imply that China's leaders have been un-persuaded by whatever assurances they have received from Washington that it does not seek absolute security.

What are China's next choices on strategic modernization? It must decide:

22. See for example Tian Jingmei, "The Bush Administration's Nuclear Strategy and Its Implications for China's Security," a working paper prepared at the Center for International Security and Cooperation, Stanford University, March 2003.

23. By one count, 58 new launch sites have been identified. See Hans M. Kristensen, "Extensive Nuclear Missile Deployment Area Discovered in Central Asia," Federation of American Scientists, at www.fas.org, June 2008. For a discussion of the functions of China's regional deterrent, see Brad Roberts, "Strategic Deterrence beyond Taiwan," in Roy Kamphausen et al., eds., *PLA Missions Beyond Taiwan* (a book project of the National Bureau of Asian Research, the Strategic Studies Institute of the US Army War College, and the George Bush School at Texas A&M University), forthcoming. See also Ye Hailin, "New Delhi's Spear and Shield," in *Shanghai Dongfang Zaobao* in Chinese December 21, 2007. Open Source Center, CPP20071221050003.

- Whether to continue its build-up of short-range ballistic missiles across the Taiwan strait;
- How much new force structure to deploy in response to developments in the strategic postures of others and how rapidly to do so;
- How to respond to the increasing size and reach of India's nuclear forces and whether or not to overtly deploy nuclear military power into the Indian ocean;
- What is required to counter Russia's re-embrace of nuclear weapons and how to hedge against Russian threats to reconstitute a force of intermediate-range ballistic missiles (which could significantly upset the nuclear military balance with China);
- How to adapt its force in light of progress by Japan and Taiwan in fielding missile defenses;
- How much to develop and field operational capabilities of related kinds that might offer strategic effects (cyber and space attack, for example);
- Whether it can actually sustain a viable deterrent by diversifying its force structure without an element of active defense protection;²⁴
- Whether to abandon no-first-use (overtly or covertly) and develop a first-strike force that might also be credible in containing the risks of retaliation and counter-escalation;
- Whether to meet U.S. demands for enhanced transparency in its military modernization program;
- Whether and how to meet U.S. and Russian demands for more substantial assurances that their reductions in nuclear forces will not precipitate a Chinese effort to compete in new ways, including potentially for parity.

If China is “modernizing” and “building up,” Russia is pursuing “balanced modernization.”²⁵ This term connotes an effort to produce next-generation delivery

24. China's debate about the value of missile defense in its strategic posture long pre-dates the developments in U.S. missile defense policy over the last decade. Its long-standing policy of rejecting such defenses as destabilizing has sometimes been challenged by advocates of limited defenses as a solution to the problem of ensuring a credibility retaliatory capability with small numbers of forces. See Brad Roberts, *China and Ballistic Missile Defense: 1955 to 2002 and Beyond*, Paper No. P-3826 (Alexandria, Va.: Institute for Defense Analyses, 2003).

25. For further information and analysis, see Alexei Arbatov and Rose Gottemoeller, “New Presidents, New Agreements? Advancing U.S.-Russian Strategic Arms Control,” *Arms Control Today*, Vol. 38, No. 6 (July/August 2008), pp. 6-14; Alexei Arbatov, “Russia and the United States—Time to End the Strategic Deadlock,” *Carnegie Moscow Center Briefing*, Vol. 10, No. 3 (June 2008); “Russian Nuclear Forces, 2007,” *Bulletin of the Atomic Scientists*, Vol. 63, No. 2 (March/April 2007), pp. 61-64, 67; Mark Schneider, *The Nuclear Forces and Doctrine of the Russian Federation* (Fairfax, Va.: National Institute Press, 2006); and Yuri Fedorov, “Russia: ‘New’ Inconsistent Nuclear Thinking and Policy,” in Alagappa, ed., *The Long Shadow*.

systems and warheads for each leg of Russia's deterrent. Less is known about the modernization of Russia's non-strategic nuclear forces. The term also implies adapting the deterrent to some new requirements with, for example, the refitting of an SSBN for special purpose forces and possibly deploying conventional warheads on some next-generation ICBMs. Russia has also upgraded its air and missile defense systems around Moscow. But Russia's leaders apparently plan to procure a next generation force with significantly fewer delivery systems a decade hence, as the deployment of new systems is not matching the mass decommissioning of old systems. Modernization of the sea- and air-based legs of the triad has lagged the land-based leg. By one estimate, over the next 15 years there will be a 48 percent decrease in the overall warhead level and an 86 percent reduction in warheads on the ICBM force.²⁶ Russia's leaders have apparently rejected calls to increase production, preferring to instead invest in other defense sectors and other sectors of the Russian economy.²⁷

Why is Russia pursuing this "balanced modernization?" There are multiple reasons. The logic driving Russia's modernization begins, like China's, with a perception of the international security environment. Russia rejects what it perceives as American attempts to create a unipolar world. As then President Putin argued in 2007:

What is a unipolar world? However one might embellish the term, at the end of the day it refers to one type of situation, namely one centre of authority, one centre of force, one centre of decision-making. It is a world in which there is one master, one sovereign....Today we are witnessing an almost uncontained hyper use of force—military force—in international relations....No one feels safe."²⁸

In the sharper words of then first deputy Prime Minister Sergei Ivanov, "military potential, to say nothing of nuclear potential, must be at the proper level if we want...to just stay independent....The weak are not loved and not heard, they are insulted, and when we have parity they will talk to us in a different way."²⁹

26. Robert S. Norris and Hans M. Kristensen, "Russian Nuclear Forces, 2007," *Bulletin of the Atomic Scientists*, Vol. 62, No. 2 (March/April 2007), p. 64; Alexei Arbatov and Vladimir Dvorkin, eds., *Nuclear Weapons after the Cold War* (Moscow: Carnegie Center Moscow, 2008); Arbatov and Dvorkin, *Nuclear Deterrence and Non-Proliferation* (Moscow: Carnegie Moscow Center, 2006); Arbatov and Dvorkin, *Revising Nuclear Deterrence*, Center for International and Security Studies at Maryland, October 2005.

27. Nikolai Sokov, "Russia Tests New Strategic Weapons as Vice Premier Rejects Proposals for Increasing the Rate of Weapons Production," *WMD Insights*, February 2008.

28. President Vladimir Putin, Speech at the 43rd Munich Conference on Security Policy, February 10, 2007.

29. As cited in Robert S. Norris and Hans M. Kristensen, "Russian Nuclear Forces, 2008," *Bulletin of the Atomic Scientists*, Vol. 63, No. 2 (March/April 2007), pp. 54-62. See also Sergei Ivanov, "Russia Must be Strong," *Wall Street Journal*, January 11, 2006, p. 14.

Also like China, Russia's nuclear modernization effort is tied to a broader effort to adapt the military as a whole to new and emerging requirements. The chief of the Russian general staff, General Yury Baluyevsky, argued in 2005 that Russia "had long stopped preparing for large-scale nuclear and conventional wars. We will continue to prepare for the defense of our territory."³⁰ The last major revision of Russian military doctrine, in 2000, reembraced nuclear weapons as a palliative to weakness in the conventional force, on the argument that nuclear weapons will remain "the central, most reliable means for the strategic deterrence of external aggression."³¹ Russia's doctrine includes the possible use of nuclear weapons in preventive strikes.³² The broader military modernization effort is aimed at ensuring that Russia is able to secure its interests in wars against states with advanced conventional military capabilities and also nuclear deterrents. In this regard Russia holds up the United States and NATO as the benchmarks for military planning, on the supposition that "as long as Russia can deter the United States (a limited attack since massive Cold War-style attack is simply not in the cards), it can deter any other potential foe."³³

Also like China, Russia is concerned about the potential impact of developments in the U.S. strategic posture on the viability of Russia's deterrent. Some perceive an on-going U.S. build-up of nuclear potential aimed at gaining superiority.³⁴ Unlike China, Russia tends to see that potential impact as a decade or more away. This perception underpins strong Russian reactions to the proposed U.S. missile defense facilities in Central Europe.³⁵ U.S. missile defense capabilities have been characterized as

30. As cited in Robert S. Norris and Hans M. Kristensen, "Russian Nuclear Forces, 2006," *Bulletin of the Atomic Scientists*, Vol. 62, No. 2 (March/April 2006), pp. 64-67.

31. The statement is attributed to General (ret.) Mahmoud Gareev in a keynote address to a January 2007 gathering at the Russian Academy of Military Sciences that reportedly launched a process to review the doctrine of 2000, as cited in Nikolai Sokov, "Russian Academy of Military Sciences Debates Role of Nuclear Weapons in Conference on New Military Doctrine," *WMD Insights*, March 2007.

32. Steve Gutterman, "Russia: Could Use Nuclear Weapons," *Washington Times*, January 19, 2008. Gutterman cites Baluyevsky as follows: "We do not intend to attack anyone, but we consider it necessary for all our partners in the world community to clearly understand...that to defend the sovereignty and territorial integrity of Russia and its allies, military forces will be used, including preemptively, including with the use of nuclear weapons."

33. Nikolai Sokov, "Principles of Tailored Deterrence in Russian Military Doctrine and Posture," prepared for a conference on Tailored Deterrence in the Transatlantic Alliance: Nuclear, Conventional, and Non-Military Strategies, Wilton Park, United Kingdom, March 16-19, 2008, p. 3.

34. See for example General V. Korobushin, First Vice President of the Academy of Military Sciences, "There's No Alternative Now: The Place and Role of Nuclear Weapons in the National Security System Remain Unchanged," as published in Russian, World News Connection, February 3, 2007. See Open Source CEP2007020402436006.

35. For further information, see George N. Lewis and Theodore A. Postol, "European Missile Defense: The Technological Basis of Russian Concerns," *Arms Control Today* (October 2007), pp. 13-18.

“negligible” until 2015-2020 by some leading Russian experts.³⁶ Russian experts are also keenly concerned about the divergence in “reconstitution potential” of the strategic forces of Russia and the United States. As Alexei Arbatov has argued:

Due to the asymmetric state of its strategic nuclear forces’ technical characteristics and development phases, by 2012 Russia’s delivery vehicles will be fully loaded under the 1700-2200 SORT ceilings and Russia will therefore not have this same possibility to return warheads from storage and rapidly increase its potential (“this” being a reference to the U.S. upload potential with a large number of warehoused warheads and the possibility of re-loading them onto delivery systems from which they have been down-loaded).³⁷

A key issue for Russia, as for each of the countries of interest here, is “how much is enough?” For China, the answer historically has been roughly “enough to make the threat of significant retaliation credible.” For Russia, the answer over the last decade or two has been roughly “enough to maintain parity with the United States.” But today in Russia there is a debate about how important such parity is to Russia’s purposes. Putin himself has argued that “it is not the number of weapons and warheads that is important...For us, this idea of maintaining the strategic balance will mean that our strategic deterrence forces must be capable of destroying any potential aggressor.”³⁸ As one Russian nuclear expert argued in 2004:

Given Western sensitivities to the consequences of a potential use of nuclear weapons, perhaps, maintaining smaller asymmetric forces could be enough to provide reliable deterrence. This permitted Russian military thinkers to accept the idea that they not only *cannot* maintain strategic nuclear parity with the United States, due to economic constraints, but they probably *do not need it* at all [emphasis in original].³⁹

Also like China, Russia’s modernization programs are driven as much by security factors around its periphery as by its strategic relationship with the United States. The rising Russian debate about withdrawal from the Treaty on Intermediate-range Nuclear Forces (INF) reflects a Russian desire to develop or restore military balances with countries along its periphery gaining medium-range nuclear-tipped missiles. As Putin argued in 2007:

36. See for example General V. Korobushin as cited in Sokov, “Russian Academy of Military Sciences Debates Role of Nuclear Weapons in Conference on New Military Doctrine,” *WMD Insights*, March 2007.

37. Arbatov, “Russia and the United States: Time to End the Strategic Deadlock,” p. 6.

38. As cited in Norris and Kristensen, “Russian Nuclear Forces, 2007,” p. 61.

39. Alexander A. Pikayev, “A Few Speculations on Russia’s Deterrence Policy,” *Contemporary Security Policy*, Vol. 25, No. 1 (April 2004), p. 121. See also statements attributed to Russia’s representative to NATO in Sokov, “Russia Tests New Strategic Weapons as Vice Premier Rejects Proposals for Increasing the Rate of Weapons Production.”

In the 1980s the USSR and the United States signed an agreement on destroying a whole range of small- and medium-range missiles but these documents do not have a universal character. Today many other countries have these missiles, including the DPRK, the Republic of Korea, India, Iran, Pakistan, and Israel. Many countries are working on these systems and plan to incorporate them as part of their arsenals. And only the United States and Russia bear the responsibility to not create such weapons systems.⁴⁰

Not mentioned publicly in this list of Russian concerns is a neighboring country often mentioned privately by Russian experts—China. Such experts have made a case that China’s nuclear modernization and build-up is the primary factor motivating renewed Russian concern about its INF constraints, in the context of broader Russian anxiety about a rising China and a shifting landscape of demographic and economic factors that seem to promise heightened Sino-Russian conflict in the years ahead. By this argument, some reconstitution and deployment of INF capabilities along the border with China would fill a gap in the balance of military power that cannot be filled by tactical or strategic systems and would signal to China Russian resolve to defend its interests.⁴¹ Accordingly, in recent years both the defense minister and chief of the General Staff have raised the possibility of Russian withdrawal from the INF treaty.⁴² In the assessment of one Russian analyst, such statements are “not a hollow threat. The Russian military sees it as a relic of the Cold War, totally unsuited to 21st century strategic realities, and discriminating against the two countries which are parties to it.”⁴³

Russia’s desire to escape the restraints of the INF treaty reflects a broader desire to gain the flexibility to adapt its military posture to the requirements of the new and anticipated strategic landscape and not to be constrained by legal obligations assumed by

40. Putin, Speech at the 43rd Munich Conference on Security Policy, February 10, 2007.

41. Such views were reported during a research visit to Moscow in summer 2007. For further context, see Dmitri Trenin, *Russia’s China Problem* (Moscow: Carnegie Center Moscow, 1999); Dmitri Trenin and Vitaly Tsygichko, “What is China to Russia, Comrade or Master?” *Security Index* (Moscow), Vol. 13, No. 2 (Summer/Fall 2007), pp. 111-120; and Richard Weitz, *China-Russia Security Relations: Strategic Parallelism Without Partnership or Passion?* (Carlisle, Pa: Strategic Studies Institute of the U.S. Army War College, 2008).

42. As cited in Nikolai Sokov, “Chief of Russia General Staff Warns of Possible Russian Withdrawal from the 1987 Intermediate-Range Nuclear Forces Treaty,” *WMD Insights*, March 2007. Responding to Russian concerns, the United States in October 2007 gained Russian concurrence in an effort to globalize membership of the treaty, given shared concerns about missile proliferation. As Baluyevsky argued at the time, “we shouldn’t be in a hurry to withdraw from this treaty....We should try to pull other nations developing such missiles into this pact.” Added Assistant Secretary of State Paula DeSutter, “we don’t know if it’s a temporary thing.” As cited in Lee Katz, “U.S., Russia Call for All Nations to Meet INF Treaty Terms,” *United States Air Force Arms Control Bulletin*, Winter 2008, pp. 7-8. For additional information, see Rose Gottemoeller, “Looking Back: The Intermediate-Range Nuclear Forces Treaty,” *Arms Control Today* (June 2007), pp. 41-48.

43. Dmitri Trenin, “Russia’s Strategic Choices,” Policy Brief 50, Carnegie Endowment for International Peace, May 2007, p. 2.

a predecessor state in an entirely different strategic landscape. This desire is reflected also in Russians suspension of its participation in the treaty on Conventional Forces in Europe (CFE) (a suspension it blamed on the failure of its CFE treaty partners to amend the treaty to account for the collapse of the Warsaw Pact). As Dmitri Trenin argued in 2007, “like the United States, Russia now prefers to have a free hand.”⁴⁴ Or as Alexei Arbatov has argued, “Moscow has been gradually joining the U.S. in bringing down the remnants of the arms control system.”⁴⁵

From an outsider’s perspective, it appears that Russia’s debate about the needed strategic posture is driven by many competing tendencies. One is the desire for status and the confidence that vital Russian interests will not be ignored in its post-superpower era. Another is the cold calculus of military advantage. Yet another is resentment. This seeming muddle of opinion contrasts sharply with the apparently clarity of purpose evident in China.

What are Russia’s next choices on strategic modernization? It must decide:

- Whether it is necessary or possible to maintain numerical parity with the United States in terms of deployed strategic weapons;
- Whether to strike a new strategic arms control agreement with the United States toward this end, and in order to enhance the predictability of the evolution of developments in the U.S. nuclear posture;
- Whether to accept new restraints on its tactical weapons and systems as part of a bargain to stabilize the Euro-Atlantic strategic landscape;
- Whether to seek a broader escape from cold-war vintage arms control restraints and greater freedom of maneuver in the development of future capabilities;
- Whether to proceed with withdrawal from the INF treaty when and if its globalization proves impractical;
- How to address the mismatch on “reconstitution potential” with the United States;
- Whether to change the rate at which it procures and deploys new strategic systems and invests in other elements of its strategic posture including missile defense, counter-space attack, and cyber warfare capabilities;

44. Ibid., p. 2.

45. Arbatov, “Russia and the United States—Time to End the Strategic Deadlock,” p. 2.

- How to further hedge against a possible Chinese effort to field additional intermediate-, medium- and short-range systems along the Sino-Russian border;
- How to respond to the growing role of conventionally tipped missiles in China's strategic arsenal;
- What, if anything, to do about the growing strategic reach of India's missiles, that will soon gain operational capabilities against targets in Russia west of the Urals.

As China “modernizes” and “builds up,” and as Russia pursues “balanced modernization,” India is developing a “credible minimum deterrent.” It is developing and fielding a triad of land-based missiles, sea-based missiles, and air-delivered weapons (including an intermediate-range cruise missile). For its land-based missiles, India has four ballistic missile types deployed or under development, promising future deployment of strike systems against increasingly distant targets. It is also reported to be developing advanced warheads to overwhelm ballistic missile defenses and deployable as multiple reentry vehicles atop individual missiles.⁴⁶ It is also developing missile defense as part of its overall strategic posture and hopes to begin to deploy systems for the protection of major cities by 2010.⁴⁷ As Raja Mohan has argued, “India believes building a missile defence shield...is a natural complement to its strategy of limiting its nuclear arsenal to a modest level.”⁴⁸

Why is India developing this deterrent? In the views of one well informed Indian analyst, this simply reflects the conclusion of the process of coming “to terms with the nuclear revolution and its impact on world affairs.”⁴⁹ For many Indians, India's decision to equip itself with nuclear weapons is simply a reflection of its role as a great power and central player in the emerging international system. Toward that end, India seeks “a level of capability consistent with maximum credibility, survivability, effectiveness, safety,

46. Robert S. Norris and Hans M. Kristensen, “Indian nuclear forces, 2008,” *Bulletin of the Atomic Scientists* (November/December 2008), pp. 38-41.

47. Ashley J. Tellis, “The Evolution of U.S.-Indian Ties: Missile Defense in an Emerging Strategic Relationship,” *International Security*, Vol. 30, No. 4 (Spring 2006), pp. 131-151. See also Brahma Chellaney, “New Delhi's Dilemma,” *Washington Quarterly*, Vol. 23, No. 3 (Summer 2000), pp. 145-153 and Anya Loukianova and Sharad Joshi, “India Expands Foreign Collaboration in Missile and Space Programs, Tests Missile Defense System,” *WMD Insights*, March 2008.

48. Raja Mohan, “Space—Asia's New Military Frontier,” *Straits Times*, December 22, 2007.

49. Raja Mohan, “Beyond the Nuclear Obsession,” *The Hindu*, November 25, 1999.

and security....This is a dynamic concept related to the strategic environment, technological imperatives, and the needs of national security.”⁵⁰

Of course India’s nuclear force is also being developed with an eye toward maintaining a military balance with Pakistan, which is also deploying a diverse set of nuclear delivery means.⁵¹

But China seems to loom more prominently in India’s nuclear calculus than Pakistan. India’s decision to initiate development work on nuclear weapons followed its humiliating defeat in a border war with China in 1962.⁵² China featured prominently in Indian Prime Minister Vajpayee’s defense in May 1998 of the decision to proceed with nuclear testing.⁵³ India’s rejection of the Comprehensive Test Ban Treaty reflected its unwillingness to accept a permanent division in Asia between the nuclear haves and have-nots.⁵⁴ And the evolution of thinking in India about the size and character of its future nuclear force derive in significant measure from an understanding of the requirements of effective deterrence of China.⁵⁵

India’s leaders remain wary of the potential for renewed military conflict with China over Tibet and the military forces (including nuclear) that China appears to be deploying for such a contingency⁵⁶ and also by China’s apparent preparations to project power into the Indian Ocean (including nuclear strike systems).⁵⁷ Hence it is developing

50. From the Draft Report of the National Security Advisory Board on Nuclear Doctrine, August 17, 1999, as followed by a January 4, 2003 Indian government statement, “Cabinet Committee on Security Reviews Operationalization of India’s Nuclear Doctrine” calling for a credible minimum deterrent under the condition of no first use. See also Mohammed B. Alam, “India’s Nuclear Doctrine: Context and Constraints,” Working Paper No. 11, *Heidelberg Papers in South Asian and Comparative Politics*, October 2002.

51. Sharad Joshi, “India and Pakistan Missile Race Surges On,” *WMD Insights*, October 2007.

52. Deepa M. Ollapally, “Mixed Motives in India’s Search for Nuclear Status,” *Asian Survey*, Vol. 14, No. 6 (November-December 2001), pp. 925-942. For more on China in the context of Indian nuclear decision-making, see George Perkovich, *India’s Nuclear Bomb: The Impact of Global Proliferation* (Berkeley, Calif.: University of California Press, 1999).

53. See the letter from Prime Minister A.B. Vajpayee to President William J. Clinton of as printed in *The New York Times* on May 13, 1998.

54. Ollapally, “Mixed Motives in India’s Search for Nuclear Status.”

55. Vijai K. Nair, “No More Ambiguity: India’s Nuclear Policy,” *Foreign Service Journal*, Vol. 79, No. 12 (October 2002), pp. 48-54. See also Sharad Joshi, “Nuclear Proliferation and South Asia: Recent Trends,” posted at the website of the Nuclear Threat Initiative, www.nti.org, and Raja Mohan, “India’s Quest for Continuity in the Face of Change,” *Washington Quarterly*, Vol. 31, No. 4 (Autumn 2008), pp. 143-153.

56. B. Raman, “Our PM’s Visit to China: Core Concerns Persist,” Paper No. 99, Chennai Centre for China Studies, January 15, 2008.

57. See Rajat Pandit, “China’s deep sea plans alarm India,” *Times of India*, May 5, 2008 and Daniel Blumenthal, “An Underwater Threat,” *Newsweek*, May 10, 2008.

the Agni IV which is intended to have the range to strike Beijing, Nanjing, and Shanghai.⁵⁸ India's missile defense posture seems also to be developing with China in mind. As Raja Mohan has argued, "China's nuclear potential is an unstated but important element of Indian (and Japanese) missile defense programs. For both Delhi and Tokyo, missile defense is part of an effort to create some strategic leverages vis-à-vis China."⁵⁹

What are India's next choices? For the moment, it remains focused on fulfilling a vision of minimum deterrence sketched out a decade and more ago. But it does face at least a couple of basic future decisions. It must decide:

- Whether or not to field an ICBM. Conspicuously, India has not so far sought to develop an intercontinental-range nuclear strike capability. In the words of one Indian military expert, doing so "would raise hackles in the U.S."⁶⁰ According to one press report, "the most treasured dream" of India's Defense Research and Development Organization "remains the development of an ICBM with a range of 15,000 km, already christened the Surya or sun, to match the Chinese DF-3 ICBMs that can hit U.S. cities."⁶¹
- How a changing security environment affects decisions about what is "enough" strategic capability. As noted above, India's concept of sufficiency is "dynamic." Given the uncertainties about the future trajectories of strategic military developments in countries neighboring India with (or soon to have) nuclear weapons, it seems likely that India's notion of how many and what kinds of forces it needs is likely to evolve.

As China "modernizes" and "builds up," as Russia pursues "balanced modernization," and as India develops a "credible minimum deterrent," Japan is relying on extended nuclear deterrence from the United States. And it is also hedging.

As the only one of Asia's major powers that signed the NPT as a non-weapon state, Japan made the choice in the 1960s to forswear the development of an independent nuclear deterrent. Since then, it has adopted the "three no's" as a matter of national policy: not to possess, produce, or allow nuclear weapons to be introduced into Japan. It adopted this posture in the context of a security alliance with the United States

58. Joshi, "India and Pakistan Missile Race Surges On."

59. Mohan, "Space—Asia's New Military Frontier." See also Tellis, "The Evolution of U.S.-Indian Ties."

60. As cited in "After Testing China-Specific Missile, India Eyes ICBMs," *Agence France Presse*, New Delhi, April 16, 2007.

61. Ibid. For further on India's ballistic missile development program and its potential long-term implications, see Richard Speier, "U.S. Space Aid to India: On a 'Glide Path' to ICBM Trouble?" *Arms Control Today* (March 2006).

that promised protection of Japan by conventional and other means and the particular requirements of extended deterrence have been met in ways uniquely appropriate to the U.S.-Japan alliance (in contrast to NATO, for example, there is no high level group for policy coordination or a nuclear burden-sharing process). In the context of this alliance, Japan has chosen to participate in missile defense development with the United States and to field initial capabilities as part of an integrated defense architecture. It fields no long-range strategic strike systems, though it has sometimes advocated for such capabilities. It has also invested in nuclear, space, and other high-technology capabilities for peaceful purposes that it could draw upon if it were ever to choose to create nuclear weapons of its own.⁶²

Why has Japan adopted this posture? A central tenet of its national defense policy, as formulated in 1957, is that Japan will not develop military power that could threaten other countries. In this context, missile defense, as a tool of the defense, is politically acceptable in Japan, whereas nuclear weapons, as tools of the offense, are not. Moreover, missile defense is seen as a necessary response to the emergence of new threats in Japan's security environment, principally from North Korea but also from China.⁶³ It is important to underscore that Japan's strategic posture is the result of a calculation of national interest reflecting a careful reading of the potential costs and benefits of different strategic postures. It is much more than simply a reflection of a deep-seated nuclear taboo. And this makes it contingent on circumstance.

What are Japan's next choices? It must decide:

- Whether any departure from its current strategic posture is warranted by changing circumstances, especially the advent of nuclear weapons in North Korea but also China's strategic modernization and build up;
- Whether it remains satisfied with the United States as a security guarantor and partner in safeguarding its various interests;
- How to cope with developments in the China-US strategic military posture that may affect its interests;
- What, if anything, to do if Russia abrogates the INF treaty and deploys intermediate-range nuclear forces into Asia.

62. For further on these topics, see Michael J. Green and Katsuhisa Furukawa, "Japan: New Nuclear Realism," in Alagappa, ed., *The Long Shadow*. See also Ken Jimbo, "Nuclear Weapons and Strategic Systems and Japan," a discussion paper prepared for a U.S.-Japan strategic dialogue hosted by Pacific Forum CSIS and the Defense Threat Reduction Agency in Hawaii in February 2008.

63. See Japan's Defense White Paper of 2008 for an elaboration of these points.

Lastly, the United States too is an Asian major power. In the development of its strategic posture, it has recently embraced the verb “transform.” To be sure, this is a word that is closely associated with the Bush Administration and especially with former Secretary of Defense Donald Rumsfeld, and thus may well pass from the public lexicon as the Obama Administration puts its own imprint on these matters. But even if the verb changes, the core idea will not. The United States has been moving away from a strategic posture defined solely by its nuclear component and toward something more diverse and complex since at least the 1980s. That is when the emphasis on non-nuclear strategic strike first began to emerge in U.S. defense planning and so too theater missile defense capabilities. The commitment to a missile defense system that is effective against the kinds of threats possible from small states armed with a relatively small number of nuclear-tipped missiles also seems broadly bipartisan. A key question is what kind of nuclear component will remain in the overall strategic posture and the degree to which the desire to promote eventual nuclear abolition will be seen to conflict with the requirements of preserving a credible, effective, safe, and secure deterrent.

Why is the United States pursuing “transformation” of its strategic posture?⁶⁴ It is increasing its reliance on missile defenses and non-nuclear strike largely in order to reduce its reliance on nuclear weapons for strategic purposes. It seeks a stronger strategic military toolkit because it believes it is necessary to defend U.S. national interests in an area marked by heightened international uncertainty and unpredictability and the rise of challengers to order armed with weapons of mass destruction. There appears to be broad consensus that such transformation is necessary to blunt the strategic leverage that may accrue to “rogue states” as they acquire nuclear weapons and long-range delivery systems by ensuring that the United States can project power to protect its allies and to reverse or prevent acts of aggression by those rogues. There appears also to be broad consensus that such transformation can proceed without altering the foundations of strategic stability in the U.S.-Russian relationship, on the argument that the modest missile defense and non-nuclear strike capabilities envisioned for the United States could not allow it to confidently contemplate a first strategic strike against a Russia still armed with thousands of nuclear weapons.

In contrast, there is little consensus about the real or desired impact of this transformation on the China-U.S. strategic relationship. The United States has not

64. See James Wirtz, “United States: Nuclear Policy at a Crossroads,” in Alagappa, ed., *The Long Shadow*, and Keith B. Payne, *The Nuclear Posture Review: Setting the Record Straight*, United States Nuclear Strategy Forum, 2005.

decided whether its interests require that it accord China a status akin to that of Russia, in which the United States accepts mutual vulnerability as the basis of the strategic relationship because it must and should (given the political costs of rejecting it), or instead a status akin to that of the rogue states. Yet as it pursues strategic transformation, the new strike and defense capabilities it is deploying will put stress on the viability of China's small deterrent. Even a very thin U.S. missile defense is troubling to China if the United States is seen to be so capable of a preemptive strike by non-nuclear means that China can respond with only a very small number of ICBMs. It is important to note that many advocates of missile defense see no virtue in stopping at a defense that is effective against the rogues in the name of preserving stability in the U.S.-Chinese and U.S.-Russian relationships, on the argument that it is the responsibility of government to protect the people no matter what.⁶⁵

What are the next choices of the United States as it pursues strategic transformation? It must decide:

- How much nuclear de-emphasis to further pursue and whether such de-emphasis will require doctrinal and other steps rather than simply continued reductions in the numbers of operationally deployed forces;
- How much defense is enough;
- How to respond to developments in the Chinese and Russian postures and how to link those responses to desired goals in the political and economic relationships; should it counter their counters to its missile defense? Should it bolster its anti-submarine warfare capabilities to counter the diversification of China's strategic force? Should it deploy next generation strike systems capability at the ranges unique to countries as large as Russia and China? Should it create the associated intelligence, surveillance, and reconnaissance systems? Should it take the missile defense architecture into space?
- How to respond to the demands of U.S. allies for stronger assurance and updated tools of extended deterrence;
- Whether and how to modernize nuclear warheads;
- How to replace the triad of land-, sea-, and air-based weapon systems that will age out over the coming two to three decades.

65. See for example the report of the independent working group on Missile Defense, the Space Relationship, and the Twenty-First Century, Institute for Foreign Policy Analysis, 2007. See also Steven Lambakis, "Missile Defense from Space," *Policy Review*, No. 141 (February and March 2007).

In sum, each of the major power actors in Asia's nuclear landscape faces a set of major decisions over the coming years about how to further pursue national goals. It is important to note that different countries will make these decisions in different ways. In China, decisions will be made by China's Central Military Commission, which includes the commander of the Second Artillery and is chaired by the president, who will have not just military operational but also political and economic factors to consider. In Russia, policies will be debated in the Duma, where many competing economic, political, and military interests will be at play. In the more transparent and open political systems of the other countries, decisions will be made with some inputs from opinion elites. Especially in the United States, such decisions are likely also to play out against the backdrop of the desire to recommit to the goal of nuclear abolition.

D. TAKING A SYSTEM-LEVEL PERSPECTIVE

Is the whole more than merely the sum of these parts? Is there an Asian major power nuclear system—"a group of interrelated, interacting, or interdependent constituent parts forming a complex whole" (to cite *Webster's*)? The preceding analysis suggests strongly that such a system is now taking shape. What are its key attributes?

The first key attribute is the interconnection of the force modernization trajectories of Asia's major powers. Surveying the lists above of future decisions, a striking number are contingent on the choices made by other actors. Fundamental questions about "how much is enough" and how diverse a posture to construct and how aggressively to do so are tied to the answers that others will give to those same questions. These interconnections appear to be increasing as strategic reach and strategic depth increase.

A second key attribute is the increasing dynamism of this system. Throughout what Bracken refers to as the first nuclear age, the strategic landscape in Asia was fairly static. Most of these states made decisions early in the nuclear era to field national deterrents and have subsequently developed capabilities that they deem adequate to the requirements of deterrence. Once mutual assured destruction emerged as the inescapable cold war reality between East and West, even the superpowers settled into a largely predictable competition. Today, policymakers in these capitals are faced with questions about the fundamental viability of existing approaches, about "how much is enough," and about how to compete in areas of new strategic significance (outer space and cyber space,

for example). This dynamism is not the “racing” between adversaries such as witnessed in the Cold War. But it could become that.

A third key attribute of this system is its complexity. Bipolarity has given way to something far messier. Asia’s major powers are reacting to developments outside the major power system and also to each other’s reactions. For example, Russia and China are debating how much further to go in adapting their postures to the proliferation of missiles and nuclear weapons around their periphery, just as the United States is transforming its posture to deal with the challenges of proliferation to “rogue states.” But Russia and China are also responding to changes in the U.S. strategic posture, while they also hedge against each other’s further posture changes.

So far at least, this seems to be an emergent system. The interactions seem loosely and not, so far, tightly coupled. The coupling is implied in the contingent character of the choices now faced by decision-makers in each country; what they might choose to do with regard to the development of future capabilities seems to depend on choices made by others. The fact that such coupling is not yet tight is reflected in the absence of arms racing. Of course there are exceptions to these general characterizations. The next steps in China’s strategic posture seem tightly coupled to the choices the United States makes about missile defense; in contrast, what the United States chooses to do with its strategic posture seems only loosely coupled to China’s choices, in the sense that the choices of proliferators are the central focus of U.S. policymakers. Similarly, the next steps in India’s strategic posture seem tightly coupled to what steps China takes to develop its strategic posture; in contrast, what China chooses to do seems more closely linked to what the United States chooses than what India chooses. Russia’s strategic choices are so far only loosely coupled with the choices of others in Asia, though this would change dramatically if Russia chooses to withdraw from the INF treaty.

Is this emergent system stable? This raises a prior question: what is the metric of stability that matters in Asia’s major power nuclear system? In the policy world, something may be deemed stable if it is not changing. In fact, stability is a measure of a system’s capacity to cope with change and to recalibrate to a new equilibrium following some sort of shock or the addition or subtraction of some significant actor or rule of interaction. In the dynamic nuclear security environment in Asia, the metric that matters most is the ability of the security environment to absorb the changing technical capabilities of the main actors without negatively impacting their security perceptions and increasing political conflict and the risks of war. What are the potential sources of instability in this emergent system?

The first potential source of instability is unpredictability. Each of Asia's major powers is uncertain about what the other countries are doing to modernize or transform their strategic postures and why they are doing so. This is in part due to a lack of transparency, especially in China and Russia, but also in China. It is important to note that U.S. transparency falls short from the perspective of these countries—which have been asking for greater predictability in the future development of the U.S. strategic posture and clearer indications of future U.S. intent and greater willingness to accept durable restraints. This unpredictability is in part also due to the contingent character of decisions not yet made. For example, it is difficult for the United States to state definitively what kind of offensive and defensive capabilities it will have a decade hence because decisions have not yet been made and they will depend on developments between now and then in the proliferation threat, among other factors.

Asia's major nuclear powers have responded to this lack of predictability in largely the same way. Russia and China both seem to be pursuing what the United States has come to understand as capabilities-based planning. In the United States, this is shorthand for the shift away from the focus in military planning on a single major adversary in a fixed and long-term conflict and toward a world in which future adversaries cannot easily be predicted and conflicts may flare up in the short term. U.S. defense planners have tried to develop a set of planning contingencies that plausible span a spectrum of possibilities in order to invest in capabilities that are broadly useful. China's emphasis on the generic problem of modern high-tech warfare is an analogue, as is Russia's emphasis on the problem of defeating the highest-end enemy with the most diverse military toolkit as a way to cover all lesser-included challengers. These are reasonable forms of hedging.

How then is uncertainty a potential source of instability? Because it can reinforce the temptation to plan for the defense on the basis of worst-case assumptions about a potential adversary's future intentions and capabilities. These temptations are strong. In Washington, Moscow, Beijing, and elsewhere there are ranks of opinion makers who stand ready to cite the "available evidence" as "proof" that military planners in the other country or countries are pursuing strategic modernization efforts that will jeopardize vital national interests. The problem with hedging strategies based on worst-case analysis is that they can become self-fulfilling prophecies. Responding to worried perceptions of the ill intent of others, states then take steps that are seen by others (or will ultimately be revealed to others) to confirm their worst fears, leading then to their own decisions to move more assertively to create new capabilities. This action-reaction process is central to the notion of the so-called security dilemma.

The second potential source of instability is the intensification of competition that may result from the current dynamism and uncertainty. One form of intensification could be an arms race, defined as a sprint for some new form of strategic military advantage by one or more powers and the competitive responses of others not to lose ground. The United States and Russia have worried about a “sprint to parity” by China, if their nuclear force reductions proceed so far that China believes it could build up to gain numerical equivalence with modest effort. A Russian effort to deploy intermediate-range nuclear systems in Asia would likely be interpreted by many in the region as aimed at gaining both increased coercive potential and the means to employ modernizing conventional forces into conflicts around its periphery. A Japanese decision to acquire nuclear weapons would likely be followed by a sprint to some essential force structure consistent with some future notion of the requirements of minimum deterrence. Presumably Asia’s new nuclear powers could also conclude that parity or essential equivalence with Asia’s existing nuclear powers is important, precipitating new forms of competition. Some analysts have surveyed the Asian major power landscape, or elements of it, and concluded that such an arms race is in the offing—one spurred principally by the perception that the United States is seeking new advantages with its agenda of strategic transformation.⁶⁶ Of course, Vladimir Putin has both predicted and threatened an arms race as a response to what he deems the excesses of American power.⁶⁷

There could be other consequences of an intensification of competition even if an arms race does not emerge. It is difficult to imagine that the political and economic relationships among Asia’s major powers would remain insulated from an intensification of strategic military competition. Indeed, the U.S.-Russian political and economic relationship is already significantly affected by Russian perceptions of the need to compete with the United States in the strategic military domain—and especially on ballistic missile defense in Europe. At the moment, all of Asia’s major powers profess a commitment to a stable and prosperous international order in which the major, “responsible” powers cooperate to promote shared interests and deal effectively with challenges to peace. Nuclear stability in Asia would seem to require that they have the will to cooperate to address the challenges to order described in an opening section of this paper. Their will to do so rises and falls with their interpretations of whether their

66. See for example Hugh White, “Stopping a Nuclear Arms Race Between America and China,” Lowy Institute for International Policy, Sydney, Australia, Policy Brief, August 2007.

67. Putin, Speech at the 43rd Munich Conference on Security Policy.

partners pursue cooperation with a hidden agenda of gaining advantage. As two Russian scholars have argued:

Ambitious global partnership projects...require a greater magnitude of trust and cooperative efforts among partner states. And all of these are impossible to imagine while the US and Russia still target thousands of nuclear warheads at each other, keep missiles on hair-trigger alert, and modernize nuclear forces to preserve robust retaliatory capabilities against each other. Besides...the momentum of nuclear deterrence in combination with new threats and missions may destabilize the very strategic relations among great powers and still further undercut their ability to think and act together.⁶⁸

By “global partnership projects,” the authors indicate that they mean support for new efforts to meet new threats and challenges including for example the Proliferation Security Initiative, joint early warning and missile defense systems, more stringent export controls, greater warhead safety, the Global Initiative to Combat Nuclear Terror, etc.

The third potential source of instability derives from the unique role of the United States in the region as an extender of deterrence to Japan, South Korea, and indeed more generally to its allies and friends in the Asia-Pacific region. If the recipients of U.S. security guarantees were somehow to lose confidence in the United States as a security guarantor, some or many of them could conclude that moving away from dependence on the United States and toward national nuclear deterrents of their own would be necessary. Such choices would have significant implications for their neighbors and for the global treaty regime more generally. The clearest route to a nuclear tipping point and cascade of nuclear proliferation in East Asia would be through such a loss of confidence.

Informal dialogues among Asian and American experts on key issues in the bilateral alliances have highlighted a number of concerns in Asia about U.S. credibility. These include the perception that the United States might accept North Korea as a nuclear-armed state, welcome a reunified Korea to the club of nuclear-armed democracies, mismanage its strategic competition with China in a way that magnifies Chinese nuclear threats to U.S. allies in the region, and/or fail to maintain the military capabilities in the region needed for deterrence.⁶⁹

In sum, an Asian major power system is taking shape. Modernization trajectories are interconnected—and increasingly so. The system is marked by growing dynamism

68. Arbatov and Dvorkin, *Revising Nuclear Deterrence*.

69. These insights are derived from various strategic dialogues convened by DTRA’s Advanced Systems and Concepts Office in 2007 and 2008.

and complexity. Its stability may be put at risk by three factors: (1) unpredictability and the temptation to worst-case planning, (2) an intensification of competition and its negative impact on political relations, and (3) a loss of U.S. credibility calling into question the U.S. guarantor role. Any one of these factors, if it were to fully mature, would send the relationships among Asia's major powers in new and unwelcome directions. Cumulatively, their impact could be substantial, calling into question the viability of the existing Asian security order more generally.

E. POLICY IMPLICATIONS

What, if anything, can be done by policymakers to address these potential sources of instability? At a basic level, the objectives of policy should flow from those potential sources. Policy should seek to lend a sense of predictability to the Asian nuclear order, to avoid an intensification of strategic military competition, and to reinforce the reputation of the United States as a guardian of nuclear stability.

How can these objectives best be achieved? Historically, the United States has not explicitly articulated an agenda or strategy for promoting nuclear stability among Asia's major powers. This is not to imply that it has ignored Asia's nuclear challenges. As a general matter, it has adapted global approaches to the requirements in Asia on an ad hoc basis. In the 1950s and 1960s, for example, its efforts to promote stable deterrence in light of the Soviet nuclear build-up generated regional variants of extended nuclear deterrence to Japan and other U.S. allies. In the 1960s and subsequently, it utilized the emerging non-proliferation regime and associated mechanisms to constrain nuclearization by states in the region and also to deepen cooperation with the established nuclear weapon states. In the 1990s it pursued a "lead-but-hedge" strategy aimed at reducing the risks of nuclear confrontation after the Cold War (which caused the nuclear shadow to retreat significantly from the Asian landscape) while also hedging against a possible renewal of cold-war vintage arms racing by not seeking deep nuclear reductions quickly. In the current decade it has pursued a "new strategic framework" aimed at promoting political transformations in major power relations (U.S.-Russia, U.S.-China, U.S.-India) while also meeting the stability challenges posed by rogue states arming themselves with weapons of mass destruction and long-range delivery systems. This ad hoc application of global approaches to the regional problems may well continue in future decades. But the emergence of a system of nuclear offense/defense military relations among Asia's major powers raises a question about whether a more strategic approach might be beneficial.

What organizing principles might guide such an approach? This paper considers six such principles, on the argument that the overall means and ends of policy should be set out before the supporting initiatives can be identified. These six alternative principles suggest also the degree to which very different ideas have begun to emerge in the U.S. policy debate about how best to meet the challenges of nuclear stability in Asia. These alternative principles are: (1) embrace laissez-faire, (2) pursue nuclear abolition, (3) emphasize hedging, (4) compete assertively, (5) posture for dissuasion, and (6) pursue anticipatory risk reduction. Each is summarized briefly below, with a key premise in terms of Asia's nuclear order, an elaboration of associated policies, and an exploration of obstacles to success.

A laissez-faire approach would be based on the premise that the United States need not concern itself with instability in major power strategic relationships in Asia because it is the most powerful actor in the international system. Moreover, it may calculate that a laissez-faire approach over time would result in relative U.S. strategic ascendancy, assuming that under the laissez-faire approach Russian nuclear forces continue to decline and China opts not to "sprint to parity." Such an approach would allow the United States to stay focused on the challenges of the "long war" and of building tailored coalitions to deal with WMD-armed challengers. Toward this end, the United States would strengthen its assurances to Russia and China that it accepts their changes to their strategic postures as necessary and legitimate and undamaging to the strategic relationships that the U.S. accepts with each. In the words of Richard Perle:

We should greet Russian threats to race with amusement and a big yawn. They would be competing against themselves. If Putin wishes to pour petro-rubles into building more missiles, our response should be limited to sympathy for the ordinary Russians whose taxes will be squandered, much as they were with catastrophic consequences during the Cold War.⁷⁰

Under this approach, the United States would continue to transform its military posture to deny "rogue states" relationships of mutual vulnerability with the United States and in order to ensure its allies that extended deterrence remains credible.

The central problem with this first notional approach to instability in Asia is that its premise is flawed. The United States is not so powerful that it can be insulated from instability in these major power nuclear relationships. It cannot afford to ignore the political costs of competition, in terms of lost opportunities to cooperate on other

70. Richard N. Perle, "The Arms Race Myth, Again," *Washington Post*, March 3, 2008, p. A17. See also Albert Wohlstetter, "Rivals, but No 'Race'," *Foreign Policy*, 16 (1976), pp. 48-81.

challenges, or the economic costs of competition at a time of deep financial crisis. Moreover, Russian and Chinese reactions to a laissez-faire approach could entail the emergence of new threats to U.S. allies and they may find it difficult to embrace Richard Perle's admonition above. Such a result would fuel the perception among U.S. allies that the United States had taken a cavalier attitude toward their interests—and this would erode the underpinnings of extended deterrence.

There is an additional flaw in this approach: a breakdown of nuclear order in Asia would have significant spillover effects in other regions, through the diffusion of newly available technology, materials, and expertise.

If not laissez-faire, what about nuclear abolition? The premise of such an approach would be that the problem in Asia is nuclear weapons and the solution is disarmament. Such an approach would involve aggressive pursuit of the program of work set out by the four elder statesmen in their famous *Wall Street Journal* article and involving a broad renewal of multilateral and other mechanisms to generate renewed momentum toward disarmament.⁷¹ This would also involve an effort to engage Asia's major nuclear powers as full partners in the abolition effort. In support of this approach, the United States would have to accelerate development of the non-nuclear tools in the strategic military toolkit, invest significantly in the infrastructure hedge, and bolster the conventional defense of allies. Presumably other states would make some of the same choices to compensate for the absence of nuclear weapons in their strategic toolkits.

The central flaw in this approach is a timeline mismatch. Abolition would seem to require fundamental changes to the nature of the world political system and at the best this will require decades—if it in fact proves viable. Yet the emergence of an Asian major power nuclear system and its potential sources of instability are challenges in the here and now. Moreover, removal of the nuclear balance of forces would not eliminate the balance of power more generally, which would be thrown into significant disarray by such a move and amplifying the mismatch of conventional power and strategic depth that are already emerging as new sources of dynamism. China and Russia are not prepared to live in a world in which U.S. hegemony is underwritten with American conventional military supremacy and they have not means, nuclear or otherwise, to counterbalance its ambitions. Moreover, the different national industrial capacities for reconstitution of strategic forces would become more prominent in the Asian strategic landscape.

71. George P. Shultz, William J. Perry, Henry Kissinger, and Sam Nunn, "Toward a Nuclear-Free World," *Wall Street Journal*, January 15, 2008.

A third core organizing concept is to emphasize hedging. Hedging strategies are a form of insurance against the possibility that positive outcomes are not achieved and help to minimize the costs of negative outcomes. A hedging strategy for the challenges of an unstable Asian nuclear order would emphasize strategic flexibility for the United States in the form of strong alliances with a significant capacity for operational cooperation in the strategic military realm, the retention of a robust nuclear deterrent scaled for and focused on the challenges of peer or near-peer adversaries, and missile defenses increasingly capable against such adversaries.

The central potential flaw in this approach, as with all hedging strategies, is that the hedges may make more likely the circumstance that one is attempting to hedge against. Strong American alliances in Asia feed the fear of encirclement and containment that is alive and well in both China and Russia. The retention and modernization of U.S. strategic offense and defense capabilities will be read in both countries as confirming suspicions that the United States intends to escape the balance of nuclear power not just in its relations with rogue states but also with major powers. An additional factor is the ambivalence in both Russia and China about whether they have an enduring stake in a U.S.-dominated world order. Like the United States, they too are hedging and also attempting to ensure that they are not taken advantage of in the second and third moves of a competitive game. They are hedging in part against the possibility that the United States might compete strategically with the hope of gaining “absolute security” and an “escape from the balance of nuclear power” and they are prepared to interpret future U.S. hedging investments and signs of an American intention to do so.

If the premise of hedging is that the strategic problem is in the future, the premise of a strategy built around the core organizing concept of assertive competition is that the problem is in the here and now. The problem, in other words, is that Russia and China are competing now to be near-peer strategic military rivals of the United States and are moving aggressively to adapt their postures while the United States languishes. Such an approach would deemphasize the potential for partnership with these countries and reemphasize the near-peer problem. It would also seek to increase expected future U.S. freedom of maneuver by moving further away from arms control, expanding the pool of allies, extending additional forms of deterrence, and possibly also growing the club of nuclear-armed democracies. In the development of its strategic military posture, the United States would move assertively to match the strategic modernization programs of Russia and China and explicitly reject mutual vulnerability as the basis of the strategic relationship with one (China) or perhaps both.

The central potential flaw in this approach is that, even if the premise is valid, there is no Iron Curtain separating the competitors. Shared economic and security interests are real. The political commitment to work together to promote international security where vital interests do not conflict is also real. A U.S. embrace of assertive competition would also consolidate hard-line strategies in Moscow and Beijing, increase their military investments, and decrease their political cooperation. The costs to the United States of competing militarily in this way would start high and then probably rise, as the United States faces the consequences of a broad recapitalization of the “old triad” and aggressive peer-adversarial competition in new realms of strategic military significance.

A fifth core organizing concept is to emphasize dissuasion. This approach share a core concept with aggressive competition: the problem in Asia is not the present nuclear competition among major powers but the potential for future competition among them. It also shares something with the concept of hedging: dissuasion is akin to hedging in that it anticipates a possible renewal of competition that might be warded against. But it goes beyond hedging in attempting to shape the likelihood of such a renewal. Such an approach would emphasize the capacity for the so-called second move advantage; by this concept, the United States would so posture itself in terms of production capacity so that any effort by a potential adversary to compete for some new military advantage vis-à-vis the United States or a U.S. ally would be met by a countervailing U.S. reply that would effectively deny that potential adversary the advantage being sought. By being ready to compete in this way, the United States might hope to prevent the choice to compete or even the temptation to do so. This approach would also emphasize U.S. aspirations for a deepening of strategic cooperation among Asia’s major powers as responsible stakeholders in international order. It would utilize arms control, formal and informal, to try to constrain Russian and Chinese modernization activities. Essential to that process would be a promise of U.S. strategic restraint in exchange for their restraint. This implies that the United States would tailor its strategic transformation strategy to ensure that any adjustments do not threaten the viability of the deterrents of Russia and China, and also to ensure that the U.S. posture evolves as their postures evolve to maintain the current strategic relationships. It also implies that the United States would invest in the infrastructure supporting production of future strategic military capabilities, nuclear and

non-nuclear, so as to be able to respond competitively if either Russia or China would to attempt to “sprint” to some new advantage.⁷²

The central potential flaw in this approach is that decision-makers in Russia and China may already have ambitions for power and status that cannot be “shaped” by calculations of future U.S. military advantage. Moreover, as with hedging, it may inflame their concerns about even greater American hegemony in decades ahead.

In sum, these first five potential organizing concepts all appear unpromising. They measure up poorly against the requirements of dealing with the potential sources of instability in the Asian major power nuclear system. Unpredictability and worst-casing would be magnified, not reduced in strategies associated with laissez-faire, abolition, hedging, assertive competition, and dissuasion. The erosion of political will to cooperate associated with an intensification of competition would be magnified, not reduced, in strategies associated with, obviously, the assertive competition strategy but also potentially hedging and dissuasion. The potential for discrediting the United States as a security guarantor would potentially be magnified in the strategies associated with laissez-faire, abolition, and assertive competition.

F. TOWARD ANTICIPATORY THREAT REDUCTION

The premise of this approach is that an intensification of strategic military competition is not inevitable in the current political and economic climate and that the incipient sources of competition can be mitigated if the approach is strategic and not merely ad hoc. How might this be done? Let us begin by defining some policy objectives.

First, continued and indeed deeper nuclear restraint by Russia is essential to nuclear stability in Asia. Toward this end, it appears essential that the practice and institutions of strategic restraint in the U.S.-Russian relationship not be allowed to lapse. The end of cooperative efforts by the two dominant nuclear powers to continue to reduce their reliance on nuclear weapons and to reduce their arsenals in transparent and verifiable ways would make it very difficult to accomplish very much else in addressing major power instability in Asia.

72. For more on dissuasion, see Brad Roberts, *Operationalizing Dissuasion of China: Practicalities and Pitfalls*, Paper P-4014 (Alexandria, Va.: Institute for Defense Analyses, 2005) and “Dissuasion Strategy” Seminar—Final Report, Center for Strategic and Budgetary Assessments, sponsored by Office of Net Assessment, October 2003.

Second, continued and indeed deeper restraint by China is also essential. Toward this end, the United States should stop treating China as essentially an afterthought in the development of U.S. strategic thinking and policy. The United States faces some difficult choices about whether to accept mutual vulnerability as the basis of the strategic relationship—and if so, how to assure China that it does so.

Third, restraint by India is also key. Toward this end, the United States should try to persuade India's leaders that new competitions for nuclear influence in the Indian Ocean and elsewhere around South Asia are not in India's interests—or those of the United States. A Sino-Indian competition for nuclear advantage in the Indian Ocean and neighboring sea lanes of communication could have significant destabilizing consequences. Such restraint might also pay dividends in the Indo-Pakistani and Pakistani-Chinese strategic relationships.

Fourth, nuclear restraint by U.S. allies and friends—and especially Japan—is also essential. Toward this end, the United States should tend to the evolving requirements of extended deterrence and assurance. For many American experts on strategic policy, extended deterrence was a cold war problem of very little relevant today. And to the extent it remains relevant, many experts are confident that extended deterrence has become more viable as the risks of nuclear Armageddon have receded, enabling the United States to offer guarantees to others without running high risks of its own. But many American allies are seeking new forms assurance that the United States is willing and able to use its power to shape their security environments in ways that safeguard their interests and won't be coerced from doing so by newly capable nuclear-armed states.

Fifth, the continued viability of the global treaty regimes is essential. As the foundation of nuclear restraint in Asia, and especially as the normative framework for major power cooperation to deal with the challenges to nuclear order, they are irreplaceable. Toward that end, the United States should cooperate with its treaty partners to renew the international political commitment to these regimes.

To accomplish these objectives, the United States needs an overarching strategic framework for major power nuclear stability in Asia. It is useful to recall the scope and limits of the last major effort to think through key aspects of this problem—under the rubric of what the Bush Administration called its “new strategic framework” of 2001. This framework jettisoned the Anti-Ballistic Missile Treaty, downplayed the formal control of offensive nuclear capabilities, and denigrated multilateral arms control mechanisms. The Bush Administration took these steps on the argument that a new

approach was necessary to enable (1) the United States to adapt its strategic posture to new problems in the post-cold war security environment (especially nuclear-armed rogue states, whose successful attempts at aggression or coercion could be widely destabilizing) and (2) the right political relationship with Russia by creating “a new currency for dialogue” that “moves nuclear weapons out of the foreground and into the background.”⁷³ The “new strategic framework” reflected the ambition of the 2002 National Security Strategy to seize an “historic opportunity” to move major power relations “away from the balance of power” and “onto a new footing” of common interests, common responsibilities, and increasingly common values. It reflected also the desire in the 2001 Quadrennial Defense Review to gain flexibility for an uncertain strategic environment and to dissuade possible renewal of peer power rivalry by designing an adaptive strategic posture.

In implementing the “new strategic framework,” the Bush Administration embraced a “strategy for stability” emphasizing assurances to others. As President Bush described it on May 1, 2001:

I am announcing the dispatch of high-level representatives...to discuss our common responsibility to create a new framework for security and stability....We should work together to replace this [ABM] Treaty with a new framework that reflects a clear and clean break from the past, and especially from the adversarial legacy of the Cold War. This new cooperative relationship should look to the future, not to the past. It should be reassuring, rather than threatening.⁷⁴

At the time, the framework was depicted as something of a work in progress, which needed to be created through a process of dialogue and cooperation with other stakeholders—not just Russia, but other friends as well as allies and partners.

At the time, Russia was unhappy but willing to go along. Although opposed to U.S. withdrawal from the ABM Treaty, Putin stated that “we are going to go forward and find a new framework. We don’t feel threatened by your leaving the ABM Treaty.”⁷⁵ Also at the time, China was essentially an afterthought. As it was not a part of the “old”

73. Remarks by the President to Students and Faculty at National Defense University, May 1, 2001. See also Administration missile defense papers as released by the White House on July 11, 2001; the Joint U.S.-Russian Statement on a New Relationship of November 13, 2001, and the U.S.-Russia Strategic Framework Declaration of April 6, 2008 (which included a commitment to develop a post-START legally binding arrangement for deeper nuclear reductions).

74. Ibid.

75. As reported by Secretary of State Colin Powell in remarks to the Senate Foreign Relations Committee in support of ratification of the U.S.-Russian Strategic Offensive Reductions Treaty, July 9, 2002.

strategic framework (i.e., it was not a party to either the ABM or START treaties), it was not seen as particularly important in the new framework. As the Administration stated at the time, it was seeking “to construct a new strategic framework *with Russia*” [emphasis added].⁷⁶ China’s likely reactions were seen at the time as not likely to be particularly consequential:

China is already engaged in a substantial effort to modernize its strategic nuclear forces....we do not believe our deployment of limited missile defenses should lead Beijing to further accelerate or expand its buildup of strategic nuclear forces.⁷⁷

But China was nonetheless the recipient of various assurances. The Administration stated publicly that “[w]e do not view China as an enemy and our limited missile defenses are not directed at it.”⁷⁸ In his confirmation hearings in March 2001, John Bolton stated that “we will let the Chinese and the Russians know that it is not directed at them, but at other nations that we have less confidence in their ability to act in rational ways....We will engage with China on missile defense.”⁷⁹

But the assurances to China were not quite the same as those to Russia. To Russia, the Bush Administration ultimately proved willing to agree to a new arms control agreement—SORT—that would codify a stable nuclear balance, based on the principle of mutual vulnerability, to 2013. In Bolton’s words, “China poses unique challenges....a strategic partner, China is not.”⁸⁰ The White House press secretary went a step further:

The United States will not seek to overcome China’s objections to missile defense by telling the Chinese that we do not object to an expansion of their nuclear ballistic missile force...No one should try to blame the modernization of China’s offensive nuclear forces on our missile defense. China’s on-going modernization effort was initiated years ago. We will tell the Chinese that it is unnecessary and that it is not good for regional stability or for peace.⁸¹

At the same time, China was being treated in the 2001 QDR as a country that could not be mentioned by name but was seen as a rising peer adversary in Asia. And reports about the 2001 Nuclear Posture Review suggested that China was considered a candidate for

76. Administration Missile Defense Papers, July 11, 2001.

77. Ibid.

78. Ibid.

79. Statement by John R. Bolton, nominee to be Undersecretary of State for Arms control and International Security Affairs, to the Senate Foreign Relations Committee, March 29, 2001.

80. Ibid.

81. From remarks to the press September 4, 2001.

immediate contingencies involving U.S. nuclear use in a way that Russia no longer was.⁸² Administration assurances that ballistic missile defense was not “pointed at” China seemed to run afoul of the fact that such defenses “pointed at” North Korea from Alaska are also “pointed at” China. Moreover, Missile Defense Agency head General Obering stated in 2003 that the development program had to “be able to address the Chinese capabilities, because that’s prudent.”⁸³ No administration official, whether of Bush or Clinton vintage, has been prepared to offer a flat statement to China that the United States accepts mutual vulnerability as the basis of the strategic military relationship.

At the conclusion of the Bush Administration, it is apparent that the “new strategic framework” and the “strategy for stability” have not accomplished everything their authors might have hoped vis-à-vis Russia. It is clear from a Russian perspective at least, nuclear weapons have not entirely lost their currency in the relationship with the United States—or the world. It seems clear that the efforts to assure Russia that the United States does not seek to somehow fundamentally alter the strategic status quo have not so far assured Russia enough to refrain from modernizing in a way that addresses the challenges of U.S. transformation. Russian policy seems informed by the conviction that the United States seeks strategic supremacy in the long term. Whether this is posturing or conviction will not be known until Russia has to make a future choice about whether a deal with the Obama Administration better serves its interests than the absence of arms control restraint.

If it has been difficult to assure Russia of the stabilizing benefits of the “new strategic framework,” it has been even more difficult to assure China. The dialogue on nuclear weapons issues initiated as a result of the April 2006 meeting between Presidents Bush and Hu has so far apparently failed to yield any benefit in terms of increased political confidence, a relaxation of strategic modernization programs by either side, or even much new transparency.⁸⁴ China continues to increase investments in its strategic modernization program and explicitly ties those investments to emerging U.S. capabilities and intentions as it understands them. China’s expert community seems to understand the ambivalence in the United States about whether to accept mutual vulnerability as the basis of the strategic relationship with China as the United States has

82. Philip C. Bleek, “Nuclear Posture Review Leaks; Outlines Targets, Contingencies,” *Arms Control Today*, Vol. 32, No.3 (April 2002), pp. 20-21.

83. As cited in Bill Gertz and Rowan Scarborough, “Inside the Ring,” *Washington Times*, September 9, 2005.

84. These views reflect the author’s personal assessment based in part on the continuing effort to accelerate the pace of such meetings and to define an agenda that satisfies the interests of both sides.

with Russia and some of them anticipate that such a U.S. statement will become even less likely as China deploys new operational capabilities.

How might this framework and strategy be adapted by the Obama Administration to the requirements of strategic stability among Asia's major powers? To the extent that the Bush "new strategic framework" was aimed at assurance of Russia and China in service of their strategic military restraint, it would seem that the objectives of U.S. policy are enduring. But has intervening experience somehow altered them?

In terms of the U.S.-Russian relationship, the central U.S. objective has been to encourage further Russian movement toward deeper security partnership with the West and the United States and, toward that end, to downplay the nuclear balance as a central feature of the relationship. There are many good reasons to be disappointed in the progress in recent years on these matters. Russia has hardly established itself as a model democracy or aligned itself with the preferences of the West or of U.S. policy and its summer 2008 invasion of Georgia has caused an eruption of concern about a possible renewal of cold war hostility. But the Cold War has not returned and although Russia will not soon if ever become a NATO ally there continue to be important opportunities for U.S.-Russian cooperation in the international sphere. In the words of Secretary of Defense Robert Gates, "Before the United States begins rearming for another Cold War, it must remember that what is driving Russia is a desire to exorcise past humiliation and dominate its 'near abroad'—not an ideologically driven agenda to dominate the globe."⁸⁵ And it seems, at this point, that the efforts to downplay the nuclear balance have only inflamed Russian sensibilities that the United States seeks freedom of maneuver for the very purpose of gaining nuclear advantage over Russia. This line of analysis suggests that some new framework of strategic stability must be found with Russia, one involving stronger and more credible assurances from Washington about restraints in its strategic transformation vis-à-vis Russia.

An obvious follow-on question is how China might fit into this new framework. Does the United States have the same political objectives with China as with Russia? At a top level, the answer has been yes. The Bush Administration articulated repeatedly the case for the "historic opportunity" to move major power relationships onto a new footing and the pitch to China to play a role as a "responsible stakeholder" reflected a broader Bush view that other powers cannot be free-loaders on American power in a world where

85. Robert M. Gates, "A Balanced Strategy: Reprogramming the Pentagon for a New Age," *Foreign Affairs*, Vol. 88, No.1 (January/February 2009), p. 32.

American power is not sufficient to achieve common purposes of order and stability. The new administration is likely to find some different words but the core aspiration and conviction that the major powers have more to gain than lose by cooperation seems likely to endure. Accordingly, there should be a strategic framework with China that allows the United States and China and perhaps also Russia and others to gain greater confidence in their shared interest in and commitment to stability.

G. ARMS CONTROL AND ASIA'S EMERGING NUCLEAR ORDER

What role might arms control play in the next strategic framework? In this period of U.S. presidential transition, there seems to be a strong possibility that U.S.-Russian relations will return to a more even footing and that a follow-on to START I will be agreed, finalizing some plan for further joint reductions in nuclear weapons. This would help to sustain the pattern of U.S.-Russian restraint that, as argued above, is a foundation for addressing the other major nuclear stability challenges in Asia, but in itself does not go very far in addressing those challenges. A follow-on to START is not a substitute for continued implementation of the INF treaty. Some means must also be found to address the sizeable Russian force of non-strategic nuclear weapons—weapons that have a special salience for Russia's neighbors, in Asia as in Europe.

But bilateral U.S.-Russian arms control of the kind so far envisioned is little more than a foundation for what negotiated solutions might contribute to strategic stability among Asia's major powers. And to go much beyond the existing bilateral approach will require significant innovation. Among the new challenges that would have to be dealt with in pursuit of deeper reductions and a more multilateral approach are the following.

The prospect of bilateral U.S.-Russian nuclear reductions to or below the number of 1000 operationally deployed nuclear warheads would bring with it intensifying concern about the potential for a "sprint" by China to parity: In the United States, this has been understood as a possible sprint to quantitative parity with the United States in terms of operationally deployed weapons (a possibility that seems highly remote at this time). In Russia, there are concerns about a possible Chinese effort to posture itself so as to be seen to be Eurasia's most significant nuclear actor, thereby signaling its ascendancy over Russia without concurrently challenging the United States for global parity.

The prospect of deeper reductions would intensify the challenges of integrating non-nuclear strategic strike systems into desired equilibria. The growing role of conventionally-tipped ballistic missiles in the strategic postures of China, the United States, and eventually also perhaps Russia, India, and Japan is a significant new

complicating factor. Until now, this problem has been thought of as a problem unique to the U.S.-Russian strategic relationship, given the challenges for Russia of being able to determine whether a missile headed its way is equipped with a nuclear or conventional warhead. Looking to the future, as these capabilities increase in number and proliferate, states will grow even more sensitive to the potential for preventive attack by non-nuclear means on their strategic deterrents. Accordingly, it will become increasingly important to account for conventional strike systems in the overall strategic equation. So long as U.S. force numbers remain small, this problem may be essentially ignored in the U.S.-Russian balance by counting non-nuclear strike systems as if they are nuclear-armed. But this approach would work less well vis-à-vis the other strategic relationships, where numbers are not easily ignored. China, for example, is likely to be highly worried about any number of U.S. high accuracy non-nuclear strategic strike systems beyond twenty—the number of its silo-based ICBMs.

Improving U.S. and allied missile defense capabilities will also bring increasingly intense questions about the proper dividing line between defenses “big enough” to deal with rogue state challengers but not so big as to threaten the stability of major power nuclear relationships. New forms of ballistic missile defense restraint by the United States (and perhaps also others) seem necessary to the requirements of Asian major power nuclear stability. Russia and China both find it difficult to square promises of U.S. missile defense restraint with an open-ended “spiral development” program for those defenses and an unwillingness to formally foreswear any future capabilities. If the United States is interested in their future restraint, it must find new ways to assure them of its own restraint in this regard. An option that might pay more dividends in the U.S.-Russian relationship seems unpromising in the U.S.-Chinese relationship—this is the possibility of technical cooperation in the development of missile defenses. China seems not interested in the development of such defenses beyond whatever battlefield capabilities it may now have and in any case the political will to cooperate with China in this way seems missing in both Washington and Moscow.

The United States also faces the challenge of safeguarding the interests of U.S. allies and friends if and as a new framework is elaborated. Simply reporting to them the details of agreements concluded *ex post facto* works against the objectives of assurance. Yet bringing them formally into a negotiation process seems likely to make that process unwieldy, especially if Moscow and Beijing are reluctant.

In sum, a new strategic framework with an arms control dimension seems likely to be able to help stabilize U.S.-Russian deterrence at moderately lower levels. This is

roughly “more of the same” in the sense of a bilateral approach that sustains MAD while leaving China outside of the process. The alternative is a new and deeper form of strategic restraint. This might ultimately emerge as a grand bargain or all-encompassing arms control measure spanning the realms of START, SORT, ABM, and INF, but this seems unlikely in anything other than the very long term. Rather, it may emerge in piecemeal fashion and as a web of agreements, some formal and some not, among multiple parties, sometimes bilaterally and sometimes trilaterally or more broadly multilateral.

Looking beyond “more of the same” to something deeper, how might those various pieces begin to fit together? If a new U.S.-Russian agreement emerges, it seems likely to be built on the foundations of mutual understandings about future limits on the numbers and types of both non-nuclear strike and ballistic missile defense capabilities. It is important to note that the limits on U.S. capabilities that Russia might accept would be seen in China to pose significant challenges to the viability of its deterrent posture. Limitations on the numbers and deployment locations of intercontinental non-nuclear strike systems may be struck with Russia that allay its concerns about discriminating nuclear from conventional attack, but if those limitations do not severely constrain U.S. deployments to quantities that do not seem to promise excellent preemptive capabilities against targets in China, then China will not be reassured. Limits on U.S. ballistic missile defenses in Europe would do nothing to assuage Chinese concerns, and if U.S.-Russian agreement on missile defense ultimately brings with it their cooperation on missile defense research, development, and even operations that also excludes China, China will likely see its interests as jeopardized by such measures. If the United States concludes that stability and predictability in the U.S.-Russian dimension requires such measures, then Washington (and Moscow) would have to tolerate Beijing’s steps to maintain a viable deterrent as consistent with the requirements of stability and not detrimental to it.

A parallel set of arguments can be made on the INF treaty. If no means to globalize the treaty can be found but Russia also perceives increasing strategic disadvantage in the resulting force imbalances in Eurasia, then the United States might consider some new form of agreement that permits some reintroduction of Russian INF capabilities in specific deployment zones under capped numbers. As China would likely be the “target” of such Russian efforts to “restore” nuclear balance, it would likely respond with force deployments of its own aimed at preserving the advantageous balance of medium- and intermediate-range nuclear systems it now enjoys. Again, Washington

(and Moscow) would have to tolerate China's steps despite their own commitments to restraint.

This speculative analysis highlights the complexity of moving into a strategic environment encompassing multiple players and trying to employ cooperative approaches to reduce threats and risks in targeted ways. It also underscores the fact that Russia and China are, like the United States, responding to proliferation in their security environments. Unlike the United States (so far, at least), they are also responding to the adjustments in the force postures of the other major powers that have been generated by proliferation (or might be). If the United States expects to ask for their restraint in response to its efforts to prevent relationships of mutual strategic vulnerability with rogue states, then it is likely going to have to tolerate their responses to its efforts as the price of the intended strategic transformation. Of course, it may be that China or Russia or both choose to go beyond the minimum requirements of strategic stability as they perceive them and to seek new nuclear advantages over each other and/or over the United States and its allies. The United States must define the criteria by which to distinguish Chinese and Russian force posture developments that are consistent with systems-level stability from those that are not. So far at least, there is little evidence of such thinking.

From a top-level perspective, what might be the benefits and risks of this strategy of anticipatory threat reduction? This approach would seem to provide predictability sufficient to avoid the worst-case military planning that could be a major source of instability. It would seem also to put in place the restraints on national problems that constrain the incipient sources of conflict. Conceiving, creating, and implementing such an approach could also help attest to continued U.S. commitment to its historic role as a guarantor of nuclear order, thus underpinning its credentials as a security guarantor.

Is there a potential central flaw with this approach, as there is in the others? Two stand out. The first is that this approach is essentially placing a bet on a relatively benign interpretation of the ambitions informing the strategic modernization plans of Russia and China. This bet may ultimately prove ill-founded. It may well be that leaders in both Russia and China have already made a choice to compete for new forms of strategic military advantage and that U.S. restraint will simply give them more time and perhaps even reinforce a conviction that America can be duped. It is essential, therefore, to develop clear metrics that allow us to distinguish developments in their strategic postures that are consistent with their professed commitments to strategic stability and those that must instead be understood as consistent with a hidden agenda to gain some new

advantage. In the absence of such metrics, we are left to decry every new capability as proof of an impending arms race or to dismiss each as a simple waste of money.

The second potential flaw is simply that the complexity of this approach may prove overwhelming. The result may be a slow erosion of nuclear order in Asia that is not recognized as such in a timely way.

H. CONCLUSIONS

Let us return to Therese Delpech's observation that "the most complex nuclear questions are in Asia."

How different is Asia's nuclear landscape from the transatlantic one? The short answer is *very*. The Asian nuclear landscape appears complex and dynamic in ways that the transatlantic one does not. In the transatlantic context, the nuclear shadow appears to be in retreat, whereas in Asia it appears to be lengthening. In the transatlantic context, the focus seems to be on reducing cold war legacy risks, whereas in Asia it appears to be on future strategic military relationships.

Are there distinctly Asian roles for nuclear weapons? In Paul Bracken's view, the answer is a clear yes:

The single greatest difference between the first and second nuclear ages is nationalism. The Cold War was more of an ideological struggle....The second nuclear age is driven by national insecurities that are not comprehensible to outsiders whose security is not endangered. Its metaphors are fundamentally different from those of the cold war, grounded in Munich and the Cuban Missile Crisis. Each state in Asia sees the world in its own terms, drawn from its unique history and situation—and frames its nuclear ambitions accordingly.⁸⁶

In Muthiah Alagappa's view, the answer is a clear no: "The dominance of deterrence...is a consequence of the nuclear revolution. Asian countries are not immune to the logic of that revolution."⁸⁷ From the perspective of the major power system in Asia, the primary national security role of nuclear weapons seems less about deterrence than about self assurance. Seeing about them an international context defined by uncertainty and unpredictability but also a mix of positive and negative trends, the leaders of Asia's major powers embrace nuclear weapons as tools to ensure that they are able to protect vital national interests but also able to pursue confidently strategic cooperation with others where interests coincide. In their military planning guidance, they seem all to

86. Bracken, *Fire in the East*, p. 111.

87. Alagappa, *The Long Shadow*, p. 506.

think like China with a focus on “local wars under high tech conditions” and not global wars of Armageddon.

Is the Asian nuclear order stable? Again, Bracken and Alagappa offer opposing views. Bracken argues that:

The spread of the bomb is unfortunate. But it is tolerable if it is confined to one or two countries, and if they do not use it for anything more than symbolic purposes. When eight or nine contiguous countries get the bomb or missile-mounted WMD, the situation changes. The chessboard shrinks, just as it shrank in Europe at the beginning of the nineteenth century....Arms races in Asia do not approach the scale of the cold war and it is hard to see such a scale ever being reproduced there because the countries do not have the money for it. But low-level arms races could still occur and they could erupt into major confrontations....Asia has not yet had much experience in contributing to world order...The long era in which Asia was penetrated by outside powers is coming to a close. An age of Western control is ending, and the challenge is not how to shape what is happening but how to adapt to it.⁸⁸

Alagappa argues in contrast that nuclear weapons:

[D]o not fundamentally alter the distribution of power....Nuclear weapons have not substantially altered the security dynamics of Asia...nuclear weapons have contributed to the security of states and reinforced stability in the Asian security region.⁸⁹

From the perspective of the major power system in Asia, the order is increasingly dynamic. Dynamism itself is not a source of instability. The measure of stability of a system is its ability to return to equilibrium as its constituent parts or their relations change. The increasing complexity and interconnectedness of the Asian major power nuclear system makes it vulnerable to new forms of competition. But instability is not foreordained. It can be shaped by policy.

What are the sources of instability in Asia? In Asia’s nuclear landscape broadly speaking, there are at least seven: the emergence of additional nuclear weapon states, the rising potential for nuclear tipping points, the growing strategic reach and depth of Asia’s nuclear-armed states, the emergence of new nuclear supplier networks, the diversification of the strategic postures of the nuclear weapon states, the dynamism in the strategic military postures of the major powers, and the simple fact that Asia’s cast of major powers is changing. In major power nuclear relations specifically, the potential sources

88. Bracken, *Fire in the East*, pp. 33, 115, 170.

89. Alagappa, *The Long Shadow*, pp. 25-26.

of instability are more limited: unpredictability, intensifying competition, and questions of U.S. reputation.

What implications follow? What should the United States do? It should treat these issues with the seriousness they deserve. The failure to sustain and renew nuclear order in Asia would have serious consequences for stability and security there and for U.S. reputation. It would also have significant spillover effects to other regions. It should reject simplistic approaches like laissez-faire or competing for supremacy that have the allure of doing something while contributing little to the amelioration of the sources of conflict. It should embrace a strategy that would anticipate the emergence of future forms of competition that would be dangerous and destabilizing and set in place a new “new strategic framework” that sustains U.S.-Russian restraint and expands its processes and structures to encompass the other important major power actors in Asia, especially China. But this will require looking beyond a replication of START in some new form in the U.S.-Russian relationship to take a much broader view of the needed framework of strategic restraint that serves the interests of major power stability in Asia.

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14. ABSTRACT This paper examines the evolving relationships of strategic military power among Asia's major power with the objective of identifying potential sources of instability and their policy and strategy implications and argues the following main points. First, as Asia's major powers make decisions about what types of strategic military postures to create and maintain, their choices are becoming increasingly interconnected. This suggests the emergence of a system as such, as yet loosely coupled. Second, within that emergent system are various sources of instability, including unpredictability, intensifying competition, and questions of U.S. reputation. Third, U.S. policy can make an impact on mitigating these sources of instability. The United States should treat these issues with the seriousness they deserve—Asia cannot be an after-thought in the U.S. vision of nuclear order. The United States should reject simplistic approaches like laissez faire or competition for supremacy and instead embrace a strategy that sets in place a new "new strategic framework" that sustains U.S.-Russian restraint and expands its processes and structures to encompass the other important major power actors in Asia, especially China. But this will require looking beyond a replication of START in some new form in the U.S.-Russian relationship to take a much broader view of the needed framework of strategic restraint that serves the interests of major power stability in Asia.					
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